

## In store from Cisco

Cisco uncrates RFID software and powers up small-business routers and switches.

PAGES 16 and 26.

## Oracle's binge

Oracle's Siebel buy — its ninth major purchase this year — gives the company a massive integration task.

PAGE 31.

## Down at the desktop

Client system diversity represents a major management challenge for users.

PAGE 36.

# NETWORKWORLD

The leader in network knowledge ■ www.networkworld.com

September 19, 2005 ■ Volume 22, Number 37

## WiderNet

### Weathering Katrina

Three IT organizations share their storm stories.

BY PHIL HOCHMUTH

As Hurricane Katrina swept over New Orleans, Ochsner Hospital stayed open. But it was getting hot inside. With two of three generators down, fans were brought out to cool patients in the 95-plus-degree heat after air conditioning failed. And as temperatures topped 150 degrees inside critical computer and network equipment, Kurt Induni, the hospital's network services manager, had a call to make.

"We decided after we went down to one generator to shut all critical patient care systems down," Induni says. "We didn't want to take more power than we needed. It's kind of odd to say, but we shut down the patient care systems first to protect them for after the storm was over, when we would need them most."

To conserve power for critical patient life support and other medical gear, hospital staff shut down the mainframe that runs the

See Katrina, page 20

## TO THE

How volunteer efforts by network experts are making a difference.

With its Gulfport headquarters destroyed, 300 of Mississippi Power's employees now work from mobile offices connected via satellite and VoIP.

## Customers buoyed by Microsoft direction

BY JOHN FONTANA

LOS ANGELES — End users say security, management and interface upgrades that Microsoft is building into the next versions of its client operating system and Office suite appear to make a

compelling case to consider upgrades when the software ships late next year.

At its Professional Developer's Conference (PDC) last week, Microsoft tried to reassert the importance of its core technolo-

gies by displaying its Windows Vista client operating system, Office 12 suite and Longhorn Server. It also enticed developers with new tools to build feature-rich applications to complement the foundation components.

Microsoft highlighted a number of tools for traditional developers, including the forthcoming Visual Studio 2005. It also showed off its new Expression suite for designers to build slick interfaces, and tools for end users to share and route files.

The software giant hopes the tools will spur developers to tap into the platform's improvements, including a common workflow

See Microsoft, page 18

## EBay bid shows promise of VoIP

This week's VON event puts spotlight on services.

BY TIM GREENE, PHIL HOCHMUTH AND DENISE PAPPALARDO

The \$2.6 billion purchase of Skype last week by eBay further cements VoIP as an industry-altering business technology.

The deal raises the public profile of VoIP just as Fall VON 2005 opens its doors this week in Boston, where service providers will grapple with what IP voice services they should offer to keep competitive and what equipment they need to support them.

Now in its ninth year, the show has grown dramatically, drawing crowds in both Boston and

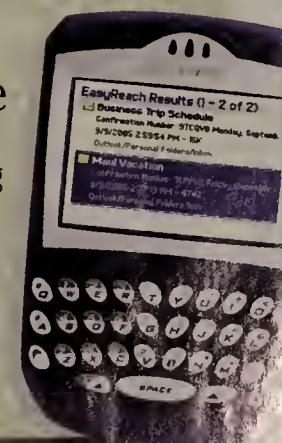
Northern California at six-month intervals. Last year's Boston show took up 70,000 square feet of floor space, and this year's will occupy 120,000 square feet to accommodate an increase in exhibitors from 200 to 330. Attendance is expected to jump from 5,000 to 7,500, show sponsors say.

Meanwhile, eBay is showing the potential of VoIP and related IP communications that other businesses and service providers might imitate. EBay plans to combine with Skype to offer its customers ways to make transactions

See VoIP, page 72

## DEMO FALL preview

An exclusive look at the hottest enterprise products being unveiled this week at DemoFall, where vendors are focusing heavily on security and business continuity. Of course, DemoFall is also about what's cool, and Cool Tools editor Keith Shaw provides an advance look at some of those products. **Page 50**



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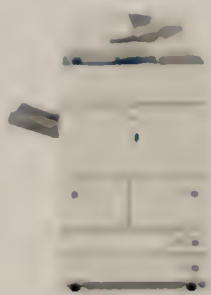
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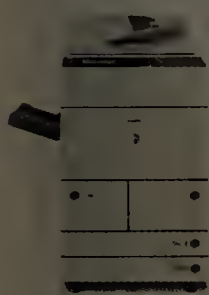


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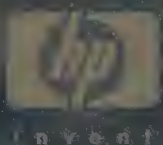
*The entire department heard Bob exclaim, “Cool!” as he used the Web browser on the new imageRUNNER 6570 to access and print his company’s 4th quarter sales results.*

**Bob’s company isn’t doing business as usual. What about your company?** While “cool” definitely applies to the new Canon imageRUNNER®70 Series, “groundbreaking” is more apt. Both the imageRUNNER 6570 and imageRUNNER 5570 have the industry’s first embedded Web access function – in other words, a full-size user interface panel that actually lets you call up Internet or intranet data without the use of a PC, right from the device. Once you’ve done that, you can print the forms and documents you need to work more efficiently and productively. Of course, there are a host of other great features that help expand the potential of your workday. And that’s definitely not business as usual.

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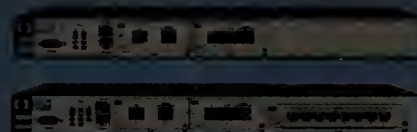
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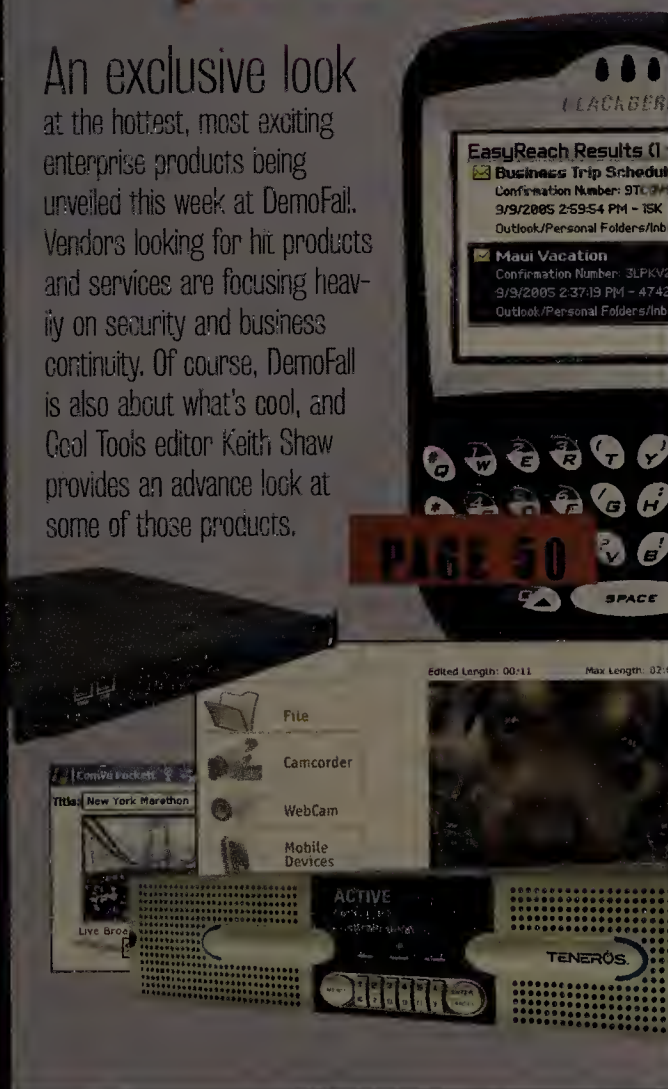
## COOLTOOLS

The MacGyver watch does more than tell time — it also comes with an MP3 player, a five-mode audio equalizer and a voice recorder. **Page 46.**



## Features DEMO FALL preview

An exclusive look at the hottest, most exciting enterprise products being unveiled this week at DemoFall. Vendors looking for hit products and services are focusing heavily on security and business continuity. Of course, DemoFall is also about what's cool, and Cool Tools editor Keith Shaw provides an advance look at some of those products.



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#### Katrina's aftermath news — The IT perspective

Every day we aggregate the latest IT-related Katrina cleanup news. See how much network repair will cost wireless providers, the benefits of text messaging and much more. **DocFinder: 8831**

#### Letters to the editor

Every week we receive more letters than we have space — to print. Head online to see what readers say about Intel's Wi-Fi focus, the importance of improving ROI, net security problems and more. **DocFinder: 8933**

### Online help and advice

#### IT Borderlands

Ken Fasimpaur hosts a guest column by author Penelope Trunk, who says: "Here is a message for people who say they can't stomach office politics: You will die a slow, painful career death." **DocFinder: 8934**

#### Small Business Tech

Get on the IM-voice bandwagon:

Columnist James Gaskin on why eBay and Skype will change online marketing. **DocFinder: 8935**

#### Home LAN Adventures

Office move means adding a print server: Keith Shaw looks at the benefit of adding a print server to his home network. **DocFinder: 8936**

### Seminars and events

#### Security: Preventing attacks on applications and data

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# NEWSbits

## Microsoft, AOL said to be in talks

■ Microsoft is considering taking a stake in Time Warner's America Online unit, a move that could have significant repercussions in the competitive market of consumer Internet content and services, according to reports published last week.

Microsoft and Time Warner are discussing such a deal, reports say, although the stage of the negotiations and the nature of a subsequent partnership are being characterized in conflicting ways by different media outlets. The *New York Post* describes the discussions as "advanced" and involving plans to combine AOL and Microsoft's MSN Internet unit. The *Wall Street Journal* called the talks "preliminary" and said they are part of a broader discussion about areas in which the companies can collaborate. Areas of collaboration being considered include AOL switching from using Google's search engine to using MSN's, according to the *Journal*.

## Cisco refreshes certification program

■ Cisco is revamping its skills certification program, dubbed Cisco Career Certifications, by adding training and exam tracks to the Cisco Qualified Specialist security certifications. Starting today, the program will have a new course lineup and exam to cover Cisco's growing number of security products, including intrusion-prevention systems sensors, the Cisco Security Agent, VPN Concentrator and the Adaptive Security Appliance. The new courses and exams will still be provided by Cisco's training partners, including Thompson Prometric and Pearson Vue. For more on this topic, read this week's Security Research Center notes at [www.networkworld.com](http://www.networkworld.com), DocFinder: 8941.

## Microsoft adds Vista licensing caveat

■ Businesses that want the Enterprise Edition of Microsoft's forthcoming Windows Vista operating system will have to sign up for its Software Assurance licensing program, the company announced last week. Software Assurance, introduced in 2001, encourages customers to pay an annual fee to use Microsoft's

{quote of the week}  
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"Some experts say IT doesn't matter, others say it does. There's a new book coming out this spring called *Experts don't matter*."

*Rick Swanborg, president of peer-to-peer advisory firm Icx, while moderating a panel at the Society for Information Management conference last week in Boston.*

software rather than buying licenses. The annual fee includes upgrades plus other support services. The program met with considerable resistance after some analysts said customers would pay more under Software Assurance than under the previous licensing plan. Microsoft says the updates "extend the value" of Software Assurance beyond a typical maintenance offering, which includes only support and upgrades, to something that includes access to support, new product versions and other resources.

## Sprint Nextel puts storm tab at \$200M

■ Sprint Nextel last week announced that it expects telecom restoration efforts in the Gulf region to cost between \$150 million and \$200 million through the rest of the year. The company says the estimate includes capital and operating expenses associated with the restoration of network infrastructure, retail stores and billing relief for customers that were affected by Hurricane Katrina. BellSouth announced last week that telecom restoration fol-

## TheGoodTheBadTheUgly

**Cleaning up Katrina Web sites.** The U.S. has established the Hurricane Katrina Fraud Task Force to stamp out fraudulent Web sites and other efforts to exploit the generosity of those trying to help victims of the storm. The Justice Department has had to orchestrate similar efforts in the wake of other crisis situations, such as the 9/11 terrorist attacks.



**< Weighing the benefits.** Mary Finlay, deputy CIO at Partners Health Care System in Boston, says her organization is using a host of innovative network-oriented approaches to improve health care, though she warned that some projects will go awry unless careful attention is paid to detail. She described an effort by the outfit to monitor cardiology patients at home via cell phones and medical devices. When one patient was found to have gained 20 pounds in two days when weighing herself at home, medical staff became alarmed — until they learned that she had been holding her dog while weighing herself.

**Banged up in Bangalore.** Concerned about Bangalore, India's deteriorating infrastructure, key IT companies in the city have threatened to boycott an annual conference and exhibition to be hosted by the local state government in October. Bangalore's pot-holed roads and electricity and water shortages have been a cause of concern for about five years, as the city grapples with rapid urbanization, primarily driven by the offshoring boom to the city by U.S. and European companies.

lowing the devastating hurricane could cost the local telco \$600 million. Sprint Nextel has a command center in Baton Rouge, La., that it calls Sprint City where 300 field technicians, engineers and support staff are working to restore wireless and traditional telecom services in the Gulf Region. The service provider says more than 90% and 70% of its wireless network in Mississippi and Louisiana, respectively, now are operational.

## Nortel announces WiMAX partnerships

■ Nortel last week said it will partner with Intel and Airspan Networks to offer mobile and fixed WiMAX wireless products. Nortel said working with these two companies is expected to complement work already under way in Nortel's joint venture with LG Electronics of Korea. LG and Nortel are creating a jointly owned company, tentatively called LG-Nortel, that will combine LG's telecom infrastructure business and Nortel's distribution and service businesses in South Korea. The two have already won a contract from a Korean service provider for equipment to support a mobile broadband service based on High-Speed Downlink Packet Access. LG-Nortel is also working on IEEE 802.16e-based WiMAX and Wireless Broadband products. Nortel said its WiMAX products will be designed to let wireless and wireline carriers, cable providers, media companies and other ISPs deliver broadband connectivity to consumer and corporate users by using existing networks and last-mile wireless links.

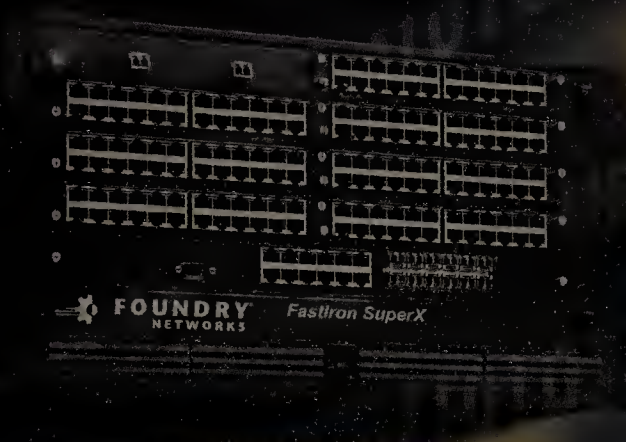
## COMPENDIUM

### Hey, hey, hey

The World Intellectual Property Organization has ordered some guy in Tennessee to hand the fatalbert.org domain to Bill Cosby, in part because "it is undisputed" that Cosby and Fat Albert enjoy worldwide fame "including in the United States." **Read the whole decision at [www.networkworld.com](http://www.networkworld.com), DocFinder: 8938.**



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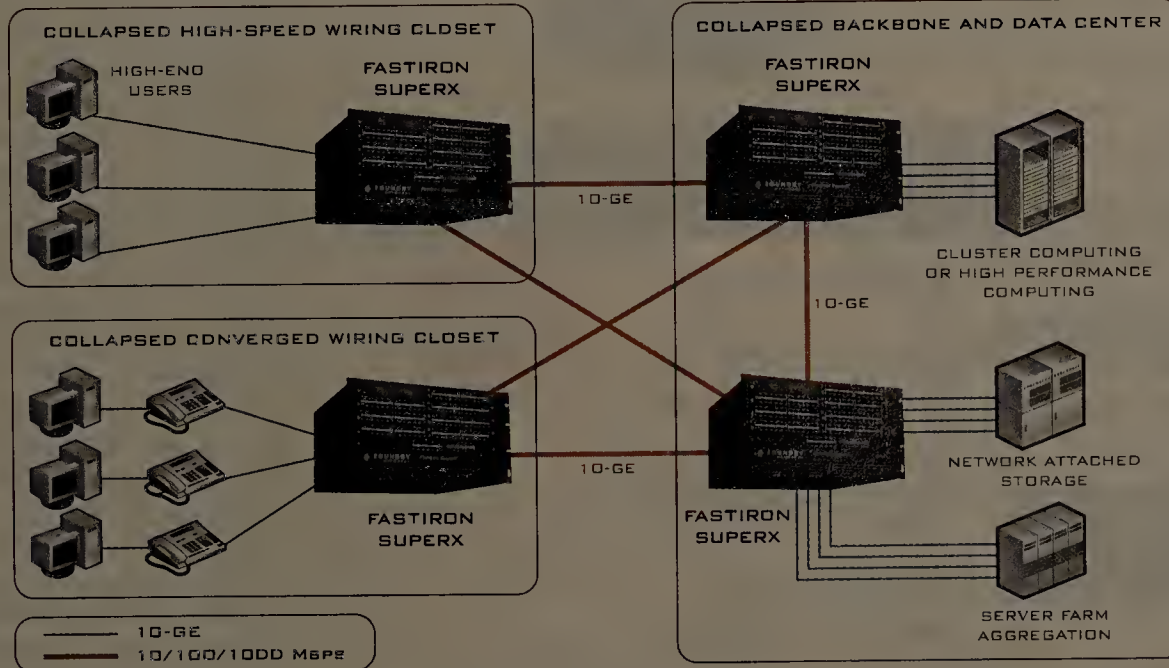
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# Continuous data protection finds supporters

BY DENI CONNOR

Demand for continuous data protection is growing as more businesses realize they not only need to back up the data on their networks as changes are made but also be able to recover that data quickly. Nearly

every storage vendor has acknowledged developing a continuous or near-continuous data protection scheme for retrieving even the most recently saved data.

"All the offerings share the common good of dramatically improving recovery

point objectives vs. traditional nightly full or incremental backups," says Steve Duplessie, senior analyst and founder of Enterprise Strategy Group. "Continuous data protection vs. near-CDP might mean the difference between recovery points of 1 second or 1 hour. Either is much better than what we do today."

At the Storage Decisions conference in New York next week, Microsoft is expected to announce the availability of its System Data Protection Manager (DPM) software, which installs on Windows Server 2003 and performs a series of snapshots of data that can be recovered by end users. It will be priced at \$950.

A variety of Microsoft partners are set to announce they will market DPM appliances or integrate their software with DPM.

## The players

Among those vendors are EqualLogic, which will support Microsoft DPM with its PS Series family of iSCSI-based storage arrays; and Commvault, which will integrate DPM with its Qinetix data management software. Also on stage with Microsoft will be Dell, Intel, Advanced Micro Devices, Computer Associates and HP, which recently unveiled the ProLiant DL 380 G4 Data Protection Storage Server.

Quantum also is reported to be releasing a DPM appliance that is integrated into its DX Series disk-to-disk products. Storactive is set to announce a new version of its LiveBackup software for protecting desktop and laptop data. And Fujitsu Siemens, Europe's largest computer maker, recently said it would soon introduce a preconfigured appliance based on its FibreCAT hardware and on DPM.

Mendocino Software also is expected to announce its RecoveryOne software at Storage Decisions. RecoveryOne is installed on an industry-standard server of a customer's choosing and continuously backs up all network data — both file and block — and recovers that data from any point in time.

Microsoft and Mendocino join Revivio, one of the first companies to bring a CDP product to market. Revivio, which is funded by Charles River Ventures and Bessemer Venture Partners, last week bolstered its product line with the introduction of the CPS1200i, a low-end appliance for departments and workgroups.

Revivio also introduced a data replication module, which enables instant recovery at two or more locations. The module supports synchronous or asynchronous and unidirectional or bidirectional replication.

CDP products, such as those from Mimosa Systems and Xosoft, save every change to data as it is made and let admin-

istrators or users recover files and other data such as e-mail from any point in time.

Near-CDP products do not have the detail of CDP. They take snapshots of data at specified points in time and only allow customers to retrieve data from those times, not from seconds or even hours ago.

Veritas is working on a near-continuous product code-named Panther; Network Appliance acquired Alacritus, a start-up with CDP software called Chronospan; and IBM recently announced a near-CDP product called IBM Tivoli Continuous Data Protection for Files. Sources say EMC also is developing a CDP appliance based on its Clariion storage servers that uses software from Mendocino to back up and recover file- and block-based data.

"I suspect you'll see EMC come forward with an enterprise-caliber true CDP offering this fall," Duplessie says.

## The case for e-mail

Don Carlos, director of information services and technology for United Teachers Los Angeles, a teachers' union, implemented Mimosa's Nearpoint for Exchange to back up e-mail.

"Previously, we would have to back up the whole database and then back up each mailbox individually so that we were capable of restoring a person's individual mailbox rather than the whole Exchange server," Carlos says. "When we would come in in the morning the backup would still be running, taking some 15 to 20 hours a day. With Mimosa, the mailboxes are being backed up in real time, and users can get the e-mail back themselves." Carlos has only two other IT people working with him.

The ability to self-service e-mail recovery is an important feature, Carlos says.

"I don't have enough IT people to support recovering e-mails for individuals, but with Mimosa I can, because individuals can recover any e-mail they want," he says.

Microsoft's System Data Protection Manager, Veritas' upcoming Panther, Storactive's LiveServe and Mimosa's Nearpoint for Exchange integrate the self-recovery of data into their offerings. Gartner says the recovery landscape in 2003 to 2010 will shift to self-service, in which users can recover their own data, which many, such as Carlos, prefer to do. ■



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# Mgmt. vendors to push best practices

Show to highlight products for automating processes, monitoring SLAs and extending ITIL support.

BY DENISE DUBIE

Management software vendors this week are set to release products that promise to help IT managers put to use best practices and the tenets of the Information Technology Infrastructure Library in their day-to-day network operations.

Companies such as HP and Oblicore plan to use the IT Service Management Forum conference in Chicago, which is expected to draw about 1,000 IT service managers, to showcase new features in their product suites.

Forrester Research estimates that 30% of \$1 billion-plus companies are experimenting with ITIL and about 13% have implemented it. Vendors such as BMC Software, Managed Objects, Mercury Interactive, IBM and Peregrine Systems also have begun incorporating parts of the ITIL foundation into their service management products, which industry watchers say could help IT managers.

Vendor "use of preconfiguration, tem-

plates and best practices will cut users' ITIL implementation costs and hassles in half," says Jean-Pierre Garbani, a vice president with Forrester.

HP offers customers services and software that when used with its service desk and other third-party software could help incorporate ITIL guidelines into incident- and problem-management processes. The HP ITSM Express Pack for Consolidated Service Desk is add-on software that provides IT managers with written processes based on HP's professional services division's experience with managing services as well as the service management baselines in ITIL. The software works with existing service desk implementations to help IT managers more easily draft processes, for example, to respond to problems and deliver services.

"ITIL is not a cookbook that gives detailed direction," says Bill Emmett, chief solutions manager for HP's Management Software Business. "The templates are prescriptive in

the processes customers need to use to align their operations with ITIL."

HP also announced that its professional services group now offers a set of four ITSM Assessment Services the company says will help IT managers determine at what stage they should deploy ITIL. Pricing is determined on a customer-by-customer basis, HP says.

Also at the conference, Oblicore plans to detail new features in Guarantee 3.0, software that manages service-level agreements for large companies and service providers to ensure that IT systems are meeting requirements of predefined SLAs. Oblicore says it uses ITIL guidelines to help customers deliver IT service catalogs and incorporates the best practices to manage SLAs.

The company, which has raised more than \$20 million in venture funding and boasts former Tivoli chief Frank Moss as the chairman of its advisory board, says it enhanced the third generation of its software to let IT-

managers more easily create rules and relate them to the underpinning service contract and to determine the root cause when SLAs are missed because of performance problems in IT systems. Now the software enables IT managers to drill down through the Guarantee interface to determine the problematic IT component.

The software uses a combination of server and distributed-agent software to measure the performance metrics specific to established SLAs and ensure preset thresholds are met. For instance, if a server is performing badly but is not directly related to a known SLA, Guarantee 3.0 would not collect or enter that data into its aggregation and correlation engine. IT managers use a Web-based wizard to create performance rules based on SLAs and generate reports. The software costs about \$500,000. ■

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# Yipes scales Ethernet service

Addition of VPLS designed to enable greater multipoint reach.

BY JIM DUFFY

Yipes Enterprise Services last week rolled out an Ethernet offering that uses new VPN technology to support global multipoint connectivity.

The service exploits the Virtual Private LAN service (VPLS), a proposed IETF standard that supports the connection of multiple sites in a single bridged domain over a managed IP/MPLS network. The goal is to overcome the limitations of ATM and frame relay for providing a protocol-transparent, any-to-any, full-mesh service across a WAN.

All services and sites in a VPLS appear to be on the same LAN, regardless of location. This removes complexity from enterprise networks, and lets carriers scale their offerings.

"VPLS — which will do automatic distribution over a mesh network — is just so much better [than] trying to configure a bunch of point-to-point links manually for wide-area network services," says David Hold of Current Analysis. "It's a question of whether a company as small as Yipes can effectively market it."

## Who's got it?

A partial listing of service providers employing VPLS technology for multipoint Ethernet services.

Service provider	Available
Allstream	Now
SureWest	Now
TelCove	Fall
Time Warner Telecom	Now
Verizon	First half, 2006
WilTel	Now
Yipes Enterprise Services	Now

Yipes is rolling out the service across its network footprint, which includes 14 metropolitan areas in the U.S. and international hubs in Hong Kong and London.

The service is anchored on Juniper M-series routers, which create an MPLS Path mesh over which all Yipes Ethernet WAN services operate at Layer 2. Yipes says the VPLS service lets companies replace global frame relay, ATM and private-line networks with Ethernet services.

Ethernet is increasingly being pitched by carriers as a flexible and cost-effective alternative for those legacy data services (see story at [www.networkworld.com](http://www.networkworld.com), DocFinder: 8939).

One big selling point is Ethernet's ability to provide a lower cost per bit and to provide a greater range of bandwidth options. Generally, Ethernet costs \$900 to \$1,000 per month for 10M bit/sec throughput, seven times the bandwidth of a 1.5M bit/sec, \$400- to \$500-per-month frame relay T-1. A 100M bit/sec Ethernet pipe costs about the same as a 45M-bit/sec ATM link — about \$5,000 per month.

Yipes' new VPLS-based service costs \$1,000 to \$2,000 per month for 10M bit/sec on an intra-metro basis, and \$4,500 to \$7,000 per month for inter-metro. For 50M bit/sec service, it costs \$3,000 to \$4,000 per month intra-metro, and \$9,000 to \$14,000 per month for inter-metro.

Pricing for the fully managed Yipes service includes the local loop, the customer premises equipment and the WAN services. Yipes says this represents a 20% to

40% savings over Layer 3 VPNs.

Total cost — including network, hardware and management — is typically 50% to 70% lower than Layer 3 VPNs because of simplified management, provisioning bandwidth at 1M bit/sec increments and network service savings, Yipes says.

Pricing aside, Yipes has seen a dramatic change in why customers adopt Ethernet, says Keao Caindec, Yipes' vice president of marketing.

"Three years ago, customers chose Ethernet services because it was simple, flexible and cost-effective for point-to-point connections," he says. "Today's Ethernet services buyers are implementing global, multipoint-to-multipoint Ethernet-based network solutions due to application and scalability requirements. Demanding applications such as electronic trading, electronic discovery, backup and recovery and electronic imaging are very difficult to operate and scale in a timely manner over traditional frame relay, ATM, private line and IP VPN networks."

As a Juniper customer, Yipes has

implemented the non-hierarchical, Kireeti Kompella-written draft of VPLS. Kompella is a distinguished engineer at Juniper.

Hierarchical VPLS, written by Marc Lasserre of Riverstone Networks and others, allows service providers to scale VPLS networks to hundreds of thousands of subscribers by enabling them to establish hierarchies of connectivity. These hierarchies are intended to simplify network configuration by limiting meshed circuits to the core of the network, which also reduces signaling overhead. ■

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# Volunteers give voice to evacuees

The hurricane's aftereffects bring about efforts to provide wireless voice, broadband access.

BY JOHN COX

In the wake of Hurricane Katrina, a volunteer group of network and wireless experts has moved from outfitting small northeastern Louisiana shelters with wireless Internet access and VoIP phones to preparing a desperately needed 45M bit/sec wireless pipe for the entire relief effort in devastated Bay Saint Louis, Miss.

"I've never witnessed destruction like this," says Paul Smith, technology director with the Center for Neighborhood Technology, a Chicago nonprofit devoted to making cities more livable. He's one of scores of network volunteers from all over the country who are creating one of the few success stories to emerge from Katrina's demolition of the Gulf Coast's technology infrastructure.

As *Network World* went to press last week, the emergency management staff of this town of 8,000 people, plus National Guardsmen, Red Cross workers and local police, fire and government personnel were relying on a couple of satellite connections, each supporting a 2M bit/sec downlink and just a 512K bit/sec uplink. One of the links had been set up at the Hancock County Medical Center by local U.S. Navy staff. The second was at NASA's Stennis Space Center, where the Emergency Operations Center (EOC) is based, coordinating all local, state and federal relief efforts in the area.

Outbound GSM cellular voice calls could be made fairly reliably, but inbound calls were overwhelming the battered cell networks, Smith says.

By the end of this past weekend, volunteers expected to have up and running a 45M bit/sec broadband wireless connection hopping from a Bay Saint Louis water tower west some 76 miles to Hammond, La. "We've been given access by the EOC to pretty much the city's entire infrastructure," Smith says. That means the volunteer team can commandeer one of the water towers outside town for the main backhaul connection, essentially a commercialized, high-powered 802.11a 54M bit/sec radio.

These devices, running in the

unlicensed spectrum, require line-of-sight alignment. The link will probably make two intermediate hops before terminating in Hammond.

Spoking out from the water tower, other wireless links on 2.4- and 5.8-GHz bands will carry throughput to 25 shelters around the town, the medical center and most importantly to the EOC.

In some cases, Smith expects to deploy a wireless LAN mesh, using open source software from the Champaign-Urbana Community Wireless Network project, and hardware from Metrix Communications: single-board computers in a weatherproof housing, 802.11a/b/g radio cards, and Power over Ethernet to simplify deployment.

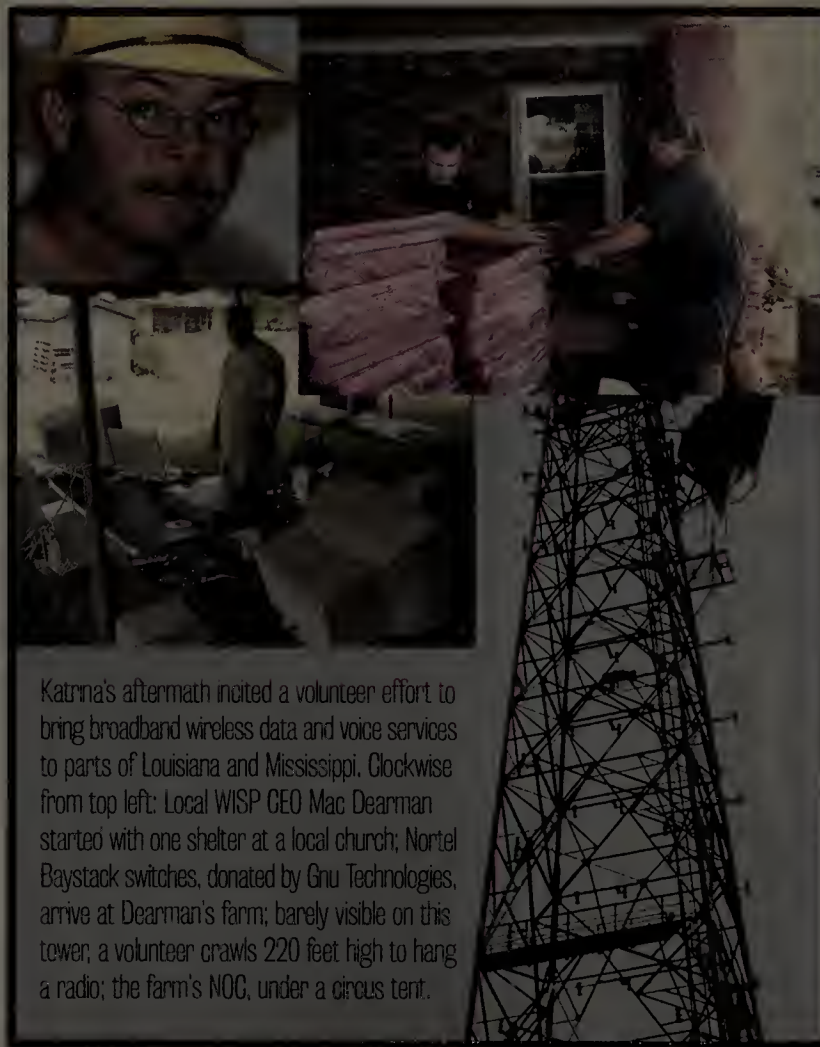
At each site, PCs, laptops, and a combination of VoIP phones and VoIP-enabled analog phones will be able to access the radio bandwidth through a router or a switch.

## Local action

This basic technology pattern and the entire volunteer wireless effort grew out of the decision by a former Mississippi river towboat captain turned wireless broadband provider to set up a similar arrangement at the Mangham Baptist Church in nearby Mangham, La., about 240 miles northwest of New Orleans.

Mac Dearman is CEO of Maximum Access, a wireless ISP (WISP) serving a large rural area around Rayville. The day after Katrina struck, he stopped at the church because it was crowded with cars. He found scores of evacuees and realized everyone was trying to use the one phone in the church office. With one of his wireless towers visible nearby, Mac and his brother Jay, a local pastor, set up a premises radio, a couple of spare PCs and a couple of VoIP phones.

Evacuees were able to start registering on the Federal Emergency Management Agency (FEMA) Web site, entering their names in the missing people databases, searching for relatives and calling them, at a time when government officials and emergency management crews could hardly communicate with each other.



Katrina's aftermath incited a volunteer effort to bring broadband wireless data and voice services to parts of Louisiana and Mississippi. Clockwise from top left: Local WISP CEO Mac Dearman started with one shelter at a local church; Nortel Baystack switches, donated by Gnu Technologies, arrive at Dearman's farm; barely visible on this tower, a volunteer crawls 220 feet high to hang a radio; the farm's NOC, under a circus tent.

Dearman started getting calls from other area churches that were sheltering evacuees and had the same pressing need for communications. After about four days, Dearman e-mailed colleagues about what he was doing via a listserv at the Wireless ISP Association (WISPA), which by then was working with another industry group of WISPs, Part-15.org, on ways to use wireless gear and expertise to restore communications.

Almost at once donations started flowing in, \$1,100 within 30 minutes of Dearman's first e-mail. The next day, Jim Patient, president of Jeffco SOHO, a WISP in House Springs, Mo., showed up with a van loaded with relief supplies and time to spend working alongside Dearman. People kept arriving, from Seattle to Buffalo and everywhere in between, bringing more supplies, equipment, money and unflagging energy despite the clinging, wet heat, and Louisiana's vicious fire ants.

After a conference call organized by the FCC on Friday, Sept.

9, Part-15 was tasked with coordinating volunteer efforts, and WISPA's officers threw their support behind that. Both groups used their e-mail lists and Web sites to promote the cause and provide channels for contributions of money and gear. Part-15 members also were streaming into the Gulf Coast area, working with local WISPs to restore their networks and creating new ones. "We can create voice and data services of any magnitude within 48 hours of arrival," says Michael Anderson, chairman of Part-15.

## Two miles of Cat 5

In days, the growing volunteer crew based at Dearman's home had equipped more than a dozen shelters in the Rayville area, stringing nearly two miles of Category 5 cable, giving hundreds of evacuees data and voice communications. By Monday, Sept. 13, less than a week after starting, the open source Asterisk IP PBX server being used had handled more than 10,000 outbound calls, according to Jeffco's Patient. "And we don't tax the

public phone network," he says. "On the public net, you have to call 15 times to get a connection. With our stuff, you get dial tone and you make the call."

When Patient returned to one shelter with another PC, an evacuee threw her arms around him and hugged him tightly. "She said, 'God bless you, I found my brother,'" he says.

The move came at the behest of two nonprofits working in the Mississippi town: Inveneo, which designs affordable technology for developing countries, and CityTeam Ministries, which works with the homeless and poor in seven U.S. cities.

## Frustrations

There have been plenty of frustrations, too. Local Red Cross chapters repeatedly refused to let WISPA volunteers set up wireless connections to their facilities, according to Dearman, reifying instead on a single DSL line in some cases, and in one case on pay phones.

The Center for Neighborhood Technology's Smith brought down a batch of Pentium 3 PCs donated to the center, which reloaded them with Linux and a batch of open source software applications, including the Firefox browser. The computers worked fine for everything except what is arguably the most important application: registering for federal disaster assistance on the FEMA Web site.

After hours of troubleshooting, Smith found that FEMA requires the use of Internet Explorer 6.0. "And it's just a simple HTML form," Smith says. "It doesn't need the use of some special [Internet Explorer]-only feature." Valuable hours were spent tracking down, and paying for, Windows licenses.

After 72 hours without a shower, Smith says his odor started frustrating co-workers.

They dragged him downtown where something perhaps even more valuable at that moment than wireless broadband had been set up: a semitrailer rigged up with shower cubicles, a changing area and pressurized hot water. ■





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# ConSentry controls 'Net access

BY TIM GREENE

ConSentry is shipping a security box that enforces policies on LANs without requiring customers to upgrade switches, which they must do if buying into comprehensive plans from some large network vendors.

The Secure LAN Controller limits the network resources individuals are allowed to access and shuts down suspicious connections that appear to be the work of malware, the company says.

The boxes sit between workgroup switches and routers inspecting traffic to Layer 7, and, by virtue of using custom chips, accomplishes this with a worst-case latency of 500 microseconds, says Tom Barsi, the company's president and CEO.

The devices have four aims: controlling access to the network, showing what each user is doing, managing the resources individuals and groups can reach, and stopping outbreaks of viruses and worms. These are similar to the goals of Cisco's, Juniper's and Microsoft's security initiatives.



ConSentry's CS 2400 provides network layer security.

The difference is that ConSentry's setup requires less equipment and less cooperation among vendors, making it simpler to use, says Dave Passmore, research director for Burton Group.

The *Las Vegas Review-Journal* newspaper finds that operating and maintaining its ConSentry devices is much simpler than the alternative it had been using, says Steven Olson, the paper's infrastructure manager. The company had restricted the resources users could access by installing internal firewalls and establishing rules that restricted certain subnets to a specific set of network resources. The system relied on static IP addresses, so any time a user moved offices, he had to change firewall rules.

With the ConSentry box, poli-

cies for individual users are set in Active Directory and the Secure LAN Controller enforces them. "My profiles remain in effect even with roaming," Olson says. With policies applied per user rather than per machine, the *Review-Journal* has been able to institute DHCP as well.

ConSentry's appliance provides real-time views of what users are doing and furnishes reports on incidents, something that was difficult with Juniper intrusion-prevention gear and NetScreen firewalls the company had in place, Olson says.

ConSentry's device doesn't address all the factors that Cisco's Network Admission Control does. For instance, it doesn't scan the machine logging on to see whether it meets corporate secu-

rity policies, but Barsi says the company will announce a partner within a month that will provide endpoint security.

Secure LAN Controller comes in two models, the CS 1000 and CS 2400. The former supports 200 users, has 10 Gigabit Ethernet ports and supports 2G bit/sec of throughput. It costs \$18,000. The CS 2400 supports 1,000 users, has 24 Gigabit ports and a throughput of 10G bit/sec. It costs \$28,000. ■

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# Cisco targets SMBs with convergence

BY PHIL HOCHMUTH

Cisco this week is expected to launch bundled IP voice and switching gear for small and midsize businesses looking to roll out converged networks quickly and at a low cost.

The packages include new switches, new versions of Cisco's CallManager Express IP PBX for small offices and management tools for quickly getting converged networks online with support for 50 to 1,500 users, the company says. Cisco says that by buying these packages, customers can save up to 35% on switching, routing and VoIP hardware and software compared with buying the products piecemeal.

The two bundles are aimed at organizations with 20 to 250 end users, and 250 to 1,500 end users, respectively. For smaller shops, the product bundle includes CallManager Express 3.3, which runs on a module that fits into Cisco's ISR line of WAN routers, as well as a new version of Unity Express, Cisco's unified voice/e-mail messaging product. New features include the ability to set up call-in conference numbers on CallManager Express, and broader language support for Unity Express. The 20-to-250-user offering also includes the option of two new IP phones — the 7941G and 7961G — which include large screens for supporting language characters

such as Cantonese or Japanese.

The new Catalyst Express 500 series of switches also are part of the small-business package. These switches, which include 12 or 24 ports of 10/100/1,000M bit/sec Ethernet, are aimed at small shops that require easy setup and management, Cisco says. Toward that end, the Catalyst Express boxes are configured via a GUI-based Cisco Network Assistant 3.0 tool, instead of the standard Cisco command line interface on most Catalyst switches.

For businesses with 250 to 1,500 employees, that bundle includes options for a new voice mail-only version of Cisco Unity, as well as several tools for setting up and managing VoIP networks, a scaled-down version of Cisco MeetingPlace collaboration software and three new IP phones.

New management tools include the IP Communications Operations Manager, a GUI-based application that includes two Cisco 1040 Sensor appliances, which allow customers to view performance and service levels for up to 1,000 phones. The Voice Provisioning Tool lets

customers set up end users for CallManager and Unity voice mailbox settings — tasks required separate applications in the past. Another new software prod-

uct, the IP Communications Operations Manager, lets administrators view call quality on individual calls across a small network.

A new switch series, the Catalyst 2960, also is being introduced for this product package. The 24- or 48-port switch (10/100/1,000M bit/sec on ports) includes more memory than the previous mid-market Layer 2 Catalyst 2950, allowing the box to support more features such as access control lists and QoS, Cisco says.

MeetingPlace Express is a scaled down version of Cisco's MeetingPlace software (120 simultaneous users instead of 960). The software lets customers set up meetings with voice and Web collaboration with a central call-in number and Web site, similar to services offered by WebEx and other providers.

Bundles including routers with built-in VoIP gear, phones and switches will cost about \$450 to \$650 per employee, Cisco estimates, although channel partners set pricing based on Cisco guidelines. For individual products, the Catalyst Express 500 series starts at \$800 and the Catalyst 2960 switches start at \$1,300. The IP Communications Operations Manager costs \$14,000 — or \$23,000 when bundled with the Service Monitor. The Voice Provisioning software costs \$1,000. The IP phones start at \$400. MeetingPlace Express starts at \$70,000 and is expected to be available in December. ■

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Read how Cisco is tackling RFID in the network. Page 26.



A man with glasses is looking over a wall of server racks in a data center. The racks are filled with various electronic components and cables. The man is looking directly at the camera with a concerned expression.

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Microsoft  
continued from page 1

engine, also introduced last week. That platform is key for corporations that plan to move into the next era of distributed computing, involving service-oriented architectures.

Vista and Office are scheduled to ship late next year. Longhorn is expected to follow in 2007.

Microsoft is trying to persuade users that Office will become a rich-client alternative that will add features to server-side computing, and it is starting to spur interest.

"You are seeing how all this stuff is adding up," says Ferdy Khater, managing director for application development for a transportation company he asked not be named. "Vista and Longhorn represent change, but they fall in line with what Microsoft has been telling us would happen."

Khater says that fact would make upgrades easier, because he has known Microsoft's overall plan for the past few years. "My current investment in Windows will not go to waste," he says.

Others also welcome changes introduced at PDC. They include those made to the Office interface and the addition of back-end servers for its productivity applications.

"I am impressed with the Office 12 user interface," says Brad

Clements, vice president of engineering for netdocuments, an application service provider that hosts corporate document management environments.

Microsoft has updated Office with graphics designed to make it easier to find features and functions. The interface replaces traditional drop-down menus and toolbars. "It will make a big difference, because all of our users are Office users, and they are users that don't know Office that well," Clements says.

But he cautions that not everything Microsoft is doing is a bull's-eye, especially the Windows Presentation Foundation (WPF), which provides developers with dramatic visual options on the desktop, such as 3-D rendering. "I think this may bring less consistency across the Windows interface, because now developers and designers can do just about anything they want," Clements says the inconsistency will be jarring to end users and could mean a rise in training costs.

Analysts say that Microsoft faces a challenge proving WPF has value to corporate users.

"A case can be made for [WPF], but so far Microsoft has not made it," says Greg DeMichillie, senior analyst for development platforms and tools at consultancy Directions on Microsoft. He says WPF has mostly been shown as

Big buckets

Microsoft showed off buckets of new code at its Professional Developer's Conference that factor heavily into what Microsoft hopes is the future appeal of its Windows platform. The company handed out more than 30G bytes of software to attendees.

Product	Description	Availability
Windows Vista	Next-generation client operating system.	Second half of 2006
Office 12	New interfaces to productivity suite.	Second half of 2006
Longhorn Server	Major revision of server operating system.	Second half of 2007
Expression suite	Tools to design user interfaces for applications.	Release date not announced.
Windows Workflow Foundation	Sub-system for the operating system.	Ships with client in 2006, server in 2007.
Atlas	Framework for building Asynchronous JavaScript and XML (AJAX)-style applications.	Some project types already released on the Web.
Language Integrated Query Project	Language innovations for the .Net framework to simplify access to data for developers.	Microsoft has not announced how this will become a formal product.
Visual Studio Tools for Applications	Next-generation Visual Basic for Applications development tool.	Second half of 2006

"eye candy" and not how it might aid usability. "That is the single biggest hole in terms of execution that they need to fill."

Some independent software developers say the platform may have more appeal to corporate users than it does for them.

"At the PDC in 2003 we heard about the pillars of Longhorn, but what is left is a GUI, a workflow engine and Office 12 with SharePoint on the back end," says Steve Wong, senior software scientist with Avamar, which develops back-up and restore technology. SharePoint includes technol-

ogy for building online workspaces around collaboration and document sharing. "I'm not troubled by what they are trying to do; I just think it is more oriented for corporations."

Microsoft is sharply focused on that area, where budget crunches and contentment with existing feature sets have stagnated upgrades to desktop clients and Office applications.

"There is more in this release than [IT pros] have seen since Windows 2000," says Jim Allchin, group vice president for platforms at Microsoft. Allchin adds that the

software appeals in different ways to different user sets, including consumers and OEMs.

"There are a lot of things in Vista for the enterprise that are compelling," says Peter O'Kelly, an analyst with Burton Group. "You have security, management, robustness, fewer reboots. I don't think you are going to see people running out in droves to upgrade, but I think a lot of people will refresh their desktops, servers and applications."

Microsoft would benefit greatly from such a refresh given that operating income has been relatively flat in recent years for both the Windows client operating system and Office. Corporate users also could benefit from more security and manageability.

Not everyone is sold on the direction Microsoft is taking.

"They are going back to the client/server days while everyone else is architecting their platform for a services model," says Dana Gardner, principal analyst with Interarbor Solutions. ■

Microsoft looks to secure digital IDs

BY JOHN FONTANA

LOS ANGELES — Looking to ease the way customers manage their digital identities, Microsoft has begun working to integrate its InfoCard authentication technology with Internet Explorer and is in discussions with the Firefox and Safari browser developers to have them include the technology on their platforms.

According to Microsoft officials, InfoCard integration could show up in Internet Explorer 7.0 even though InfoCard is currently not on the feature list. The goal is to improve security and privacy on the Internet using the InfoCard model, which puts users in control of their personal identity information and would eliminate the need for user names and passwords to sign into a Web site.

"We expect many different applications, smart apps, Web apps and browsers, to use InfoCard. Our own browser will take advantage of it," says Michael Stephenson, Microsoft's group product manager for Windows Server.

In addition, Microsoft is hoping others will

adopt its InfoCard model on the Web to help improve security and privacy with a common identity layer.

"We are having concrete discussions with Firefox and others about specific mechanisms that would communicate between a Web site and the browser so we can enable credential selection such as InfoCard," says John Shewchuk, CTO of distributed systems for Microsoft. "If we do this right, all browser vendors could provide a common mechanism."

In June, Microsoft unveiled its identity meta-system, which includes user-centric privacy controls in the form of InfoCard, a middleware technology called Windows Communication Foundation, Active Directory and a slate of Web services-based protocols led by WS-Trust that Microsoft and IBM have been developing.

WS-Trust is key for creating Security Token Service (STS), lightweight gateways for servers and clients that negotiate the exchange of security tokens, such as Kerberos or the Security Assertion Markup Language (SAML).

IBM supports the technology in its federation server, and Ping Identity has an open source implementation of WS-Trust.

In the browser model, Web sites would need to run an STS in order to signal browser users to provide their InfoCard identity credentials.

"If there is useful information from the InfoCard work that doesn't necessarily require InfoCard technology and makes browsers more secure then we would like to see that happen," says Scott Cantor, who works on the Internet2's Shibboleth identity project and the SAML technical committee at the Organization for the Advancement of Structured Information Standards (OASIS). He also is the author of OpenSAML and the security architect at Ohio State University.

Another key to recruiting partners is standardization of WS-Trust. Microsoft's Stephenson says the company and partner IBM are finalizing the language on a charter to get WS-Trust, WS-SecurityPolicy and WS-SecureConversation submitted this month to OASIS for standardization. ■

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Interview with Jim Allchin

See what Microsoft's vice president of platforms has to say about client software, IT pros, ship dates (and the lack thereof), storage technology and workflow.

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## Katrina

continued from page 1

patient record system, and a back-up Cisco Catalyst 6509 backbone switch. Better to have a cool spare Catalyst on hand in case the primary one failed, Induni says, instead of letting both switches fry.

Doctors and nurses moved to the back-up method of paper record-keeping during the brunt of the storm when the mainframe was offline.

"It was also a gamble strategy to keep the communication lines up," Induni says. "The 504 area code became useless; e-mail became the only reliable source of communications."

Ochsner was able to keep e-mail and Web access, because its T3 line connecting to a back-up site in Baton Rouge still worked.

"At the peak of the storm, during the 100-mile-an-hour gusts, I walked over to the nurses' unit, and they were keeping track of the storm online and e-mailing people," Induni says. "If we were cut off completely, people would have gotten really nervous and would have been unable to work. It was our only lifeline to the outside world."

Ochsner's IT staff in New Orleans and Baton Rouge still had to scramble to keep e-mail available, even after the storm. A fiber cut in New Orleans after the storm terminated access to the hospital's e-mail servers, located at another facility on the hospital's metropolitan-area network in the city. Teams at the remote site quickly built Novell GroupWise boxes to serve the New Orleans facility via the T3 link.

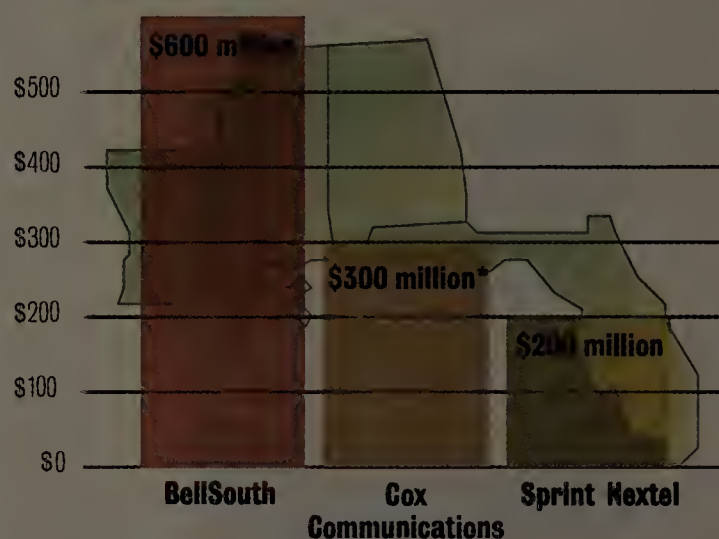
"All the disaster planning in the past," which focused on the upkeep of systems and data availability, "became second fiddle to the need to maintain outside communications," Induni says.

In keeping the technical services running at the 400-bed hospital — one of only three in the

## Toll on infrastructure

Early estimates on damage from Katrina to network infrastructure put the costs in the hundreds of millions of dollars for some service providers:

Damage costs (in millions)



\*Analyst's estimate

SOURCE: BELL SOUTH, SPRINT NEXTEL

city that remained open during the storm — Induni gives all the credit to his staff.

"The human side of this is huge," he says. "Many of our staff people have lost their homes. One person's house is covered in oil. They've lost everything. We've had to go through that adjustment and that understanding, but we're also expected to be productive. ... We put a lot of thought into what we were doing and why we were here. There were a lot of opportunities for our folks to throw their hands up in the air ... but we pulled through it."

### Courting disaster

Up north in Baton Rouge, for Louisiana's state and local court systems, Katrina will be the harsh lesson of a lifetime on the importance of disaster-recovery planning for data backup, says Freddie Manint, CIO for the Louisiana Ninth Judicial District Court.

The state court offices in Baton Rouge are now overflowing with employees from clerks offices, and sheriffs departments from Jefferson Parish, Plaquemines Parish, Orleans Parish and others are now operating out of spare rooms, closets and any open space available in the state court offices, working from laptops tied in to the state court's LAN.

"They're getting everything they need to get some kind of opera-

tions running and to plan their next move," Manint says. "The problem is, [parish court administrators] haven't been able to assess how much they lost in terms of IT infrastructure, databases and records. A lot of [court] facilities did not have disaster recovery hot sites with immediate failover. A lot of documents were just in hard-copy form, and they're under water now. A large portion of systems are ruined."

Each of Louisiana's 64 parishes operates its own court system, with its own records and files, some electronic, some not. None of these systems were linked to a centralized system for backup or disaster recovery, Manint says.

"The justice system in Louisiana is really going to waver here for a while," Manint says. "We've got people in jails all over the state right now that have no paperwork and we have no way to offer them any kind of means for adjudication."

Just last week, some court records from Orleans Parish clerk offices were recovered. The Digital Linear Tapes were en route to Baton Rouge to see what is salvageable. "Hopefully we can extrapolate something useful from that," Manint says.

Measured against parish court facilities near the Gulf, the state court's facilities in Baton Rouge got off easy, except for some sporadic power outages, and experienced no data loss,

Manint says. The state court system uses VMware software to create virtual server images to back up its core database files and records, which are dispersed across facilities.

Manint says the state court's over-built 10G Ethernet backbone, which includes redundant 3Com Switch 7700s, has handled the influx of new employees well with plenty of bandwidth to spare. He says 3Com was very responsive to the influx of workers into the court's Baton Rouge offices, Manint says, with the vendor sending several hundred LAN switches and IP phones to set up the temporarily offices.

He estimates that 80% of court IT infrastructure in the New Orleans area will have to be replaced.

As for the future, Manint is hoping for more federal funding to modernize how Louisiana handles and protects court records.

"Everyone wants disaster recovery but they don't want to fund it," he says. "It's not important until you don't have it. Everyone was always talking about the big one but not doing anything about it. Now the big one hit, and everyone's standing around saying, oh man, we got wiped out. The excuse that there's no funding [for disaster recovery] is not an excuse anymore. ... If you don't have data, you don't have a job."

### History teaches a lesson

For one electrical and telecom utility working through the storm, lessons learned during Hurricane Ivan last year and Dennis in 1999 paid off during Katrina.

The Southern Company, operator of power utilities and wireless services in Georgia, Alabama, Florida and Mississippi, began preparing for the next big storm last year by building redundant SONET rings to connect its sites across states. Right up to the first 100-mph gusts, crews were readying mobile field offices with PCs, VoIP phones and satellite uplinks. In Mississippi plants, workers were sandbagging doors to telecom rooms and wrapping PCs up in plastic wrap.

"By all measures Katrina was a much more severe storm than either Ivan or Dennis, but the impacts were less in terms of the number of sites down," says Dan

Traynor, director of IT infrastructure services.

During Ivan, Southern Company lost connectivity to several sites because its long-haul fiber was laid out in a linear topology; one fiber break meant everything beyond the cut was offline. Last year, the company rebuilt its long-haul fiber in an OC-48 ring using optical gear from Ciena. During Katrina, the company's fiber rings broke in three areas, but data services were not interrupted, he says.

Another lesson learned from Ivan was the concept of adding satellite communications for staging areas to quickly get downed lines back up. This time, the Southern Company rented mobile offices ahead of time and outfitted them with computers, network gear, VoIP phones and a satellite uplink, which beamed voice and data to a satellite service provider and back to the company's Atlanta headquarters. This kept field technicians online through the restoration process; 174,000 of Mississippi Power's 195,000 customers were back online as of last week.

With Mississippi Power's corporate offices now uninhabitable, the company is working to get the 300 employees there up and working again.

Before the storm hit Mississippi, back-up tapes of critical databases and applications were driven to alternate sites in Alabama and Georgia, where IT staff rebuilt the systems and put them back online via the OC-48 network.

Mississippi Power employees are now going to work in mobile office trailers being set up near the Southern Company's fiber facilities, allowing workers to tap into the SONET network and use applications as if they were back in their normal office.

More amazing, Traynor says, is the attitude of the employees.

"Of the 1,200 employees, about half of them had severe damage to their homes, or their homes were completely destroyed," Traynor says. "At the same time, these people were working on our restoration efforts; they weren't thinking about themselves. It's pretty inspiring." ■

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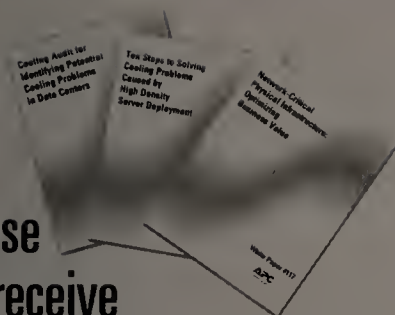


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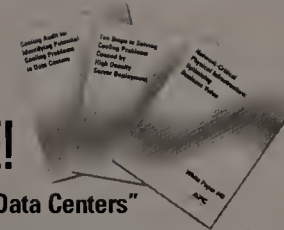
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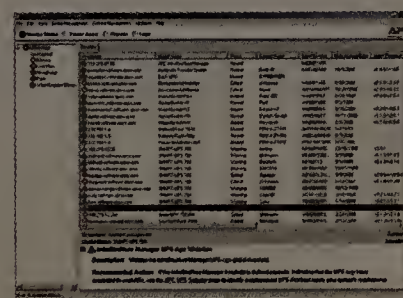
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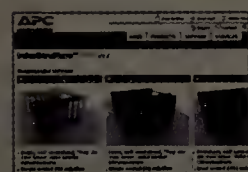


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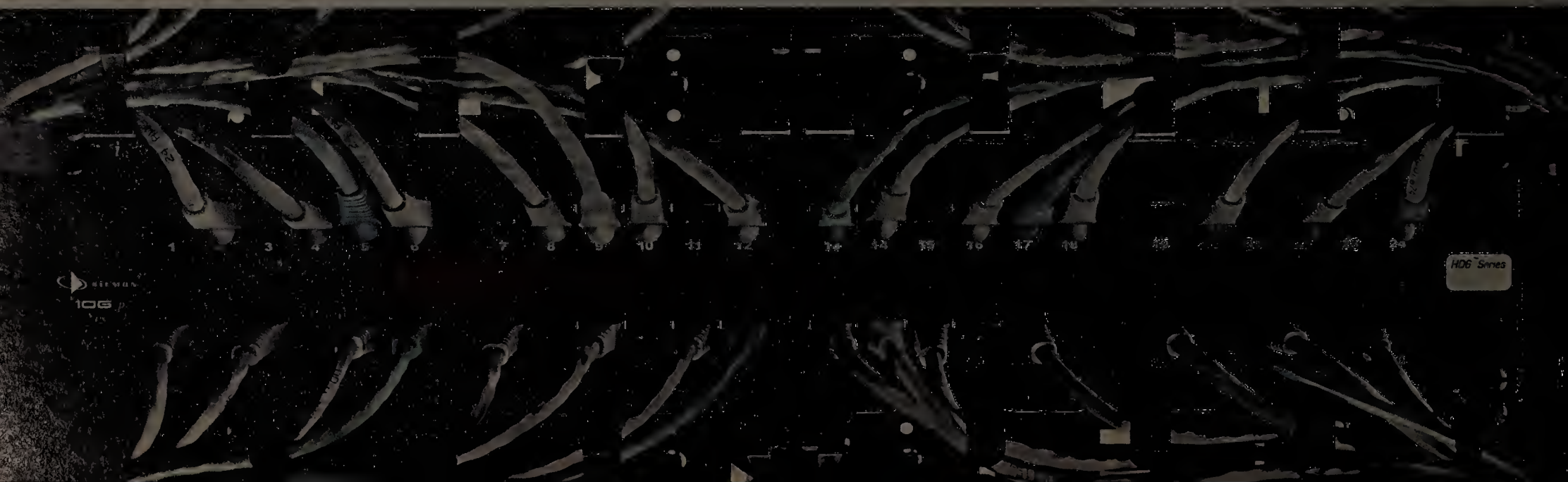


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# NET INFRASTRUCTURE

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## Short Takes

■ **Accton Technology** last week announced its ES4550 LAN switch. The box has 28 Gigabit Ethernet ports and four small form-factor, pluggable slots for interchangeable copper or fiber ports. It also supports two optional 10G Ethernet ports for high-speed uplinks to a data center or LAN backbone switch. The vendor says the switch-on-a-chip architecture of the ES4550, using silicon from Agere, also makes the box one-third the size of competitive stackable switches — and run cooler than other switches. The ES4550 is scheduled to ship in November priced at \$2,000.

■ **ActivCard** has announced **SecureLogin Single Sign-On Version 5.5**, the first version of its SSO software since it acquired Australia-based competitor Protocol Development Systems last month. ActivCard says the SecureLogin SSO v.5 is a wholesale change to Protocol's underlying technology, with the ActivCard GUI. Existing ActivCard customers are offered a swap-out, while new customers will pay \$79 per seat.

■ **NetIQ** last week announced it has added security policy templates that reflect the Federal Information Security Management Act guidelines to the NetIQ Security Compliance Suite, which is used for vulnerability management and security monitoring of servers. The FISMA guidelines are issued by the National Institute of Standards and Technology to direct federal agencies on how to manage risk within their IT environments. The NetIQ Security Compliance Suite costs \$1,120 for server software

## Copper conundrum

High bandwidth requirements may force LAN cabling decisions.

BY PHIL HOCHMUTH

LAN cabling experts and vendors say that organizations installing copper cabling in data centers should investigate new unshielded twisted-pair products that can support future high-bandwidth technologies such as 10G Ethernet.

Some chipset vendors of pre-standard products that run 10G over UTP cabling say their wares will support 10G over older cabling plants — such as Category 5, 5e or 6. But some industry experts say businesses that plan to invest in 10G Ethernet would be wise to upgrade copper cabling to the new Category 6 Augmented, or Category 6a, standard of UTP cable expected to be ratified by the International Telecommunication Union early next year.

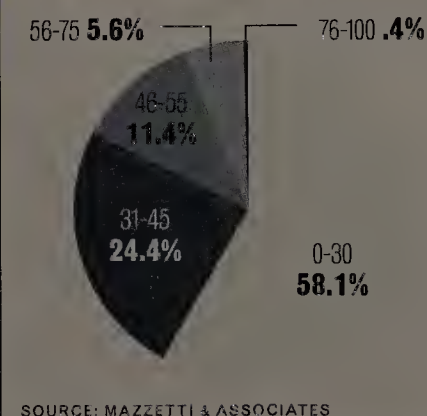
With 10GBase-T, the standard for 10G Ethernet over UTP cabling, still more than a year away, users have time to explore cabling options. But decision time is coming up.

"The need is coming for better cabling in data centers," says James Truelove, a network architecture consultant and

### The short run

Most cable runs in data centers are short, which makes unshielded twisted-pair copper cabling useful for connecting servers and switches.

Distance in meters and frequency used



author of the forthcoming *LAN Cabling, Third Edition*. He says applications that have massive data transfer requirements, such as video production, "need this now."

Other companies will follow in 10G adoption as 10G ports become more regular in switching gear. For these companies, 10G will be a breath of fresh air." Truelove says that those who plan ahead for the next level of Ethernet won't be faced with costly cable plant rip-and-replace projects.

"The people who purchased higher-quality cable have always proven to be rewarded when higher-speed Ethernet technologies were introduced," Truelove says. "That's been a lesson with people who put in Category 5, then when they wanted to go to Gigabit Ethernet, the cable couldn't handle it."

Research by J&M Consultants, a telecom engineering firm, backs this up. From 1999 to 2003 — the last year the company collected data — usage of Category 5e cabling dropped from around 66% to 35%. Meanwhile, usage of Category 6 cabling jumped from 22% to 64% during the same time period.

While some pre-standard 10GBase-T vendors — chip makers and cable makers

See Cabling, page 26

## Determina protects without patches

BY TIM GREENE

Intrusion-prevention vendor Determina this week is expected to roll out software that shores up server vulnerabilities, buying network executives time until they can install permanent patches.

The software, called LiveShield, lets corporations fix security holes in applications while keeping key servers continuously online, avoiding downtime that can disrupt business. Ultimately businesses have to install traditional patches issued by vendors and reboot the servers. But with Determina protecting the vulnerable application, the installation can be safely delayed until a time when it won't interrupt end users. Determina plans to announce LiveShield at the Demo conference this week.

LiveShield is an add-on to Determina's intrusion-prevention software, Memory Firewall, which runs on the servers it pro-

tections. Working together, the two pieces of software insert vulnerability fixes — Determina calls them shields — into applications as they are running in memory on the servers. The shields are written by Determina based on the patches issued by software vendors in response to reported vulnerabilities, and are distributed and automatically installed on the fly via Determina's management software.

To do this, each server must already be running Memory Firewall, which controls the running of the application in memory on the server, where it analyzes application behavior. When it detects abnormal behavior indicating an attack, it shuts down.

In combination with LiveShield, Memory Firewall can insert code that fixes vulnerabilities in the application as it is running on the server.

The shield is not inserted into the appli-

cation as it is stored on the server hard drive, so the actual patch will still have to be installed. With the extra time LiveShield provides, businesses can schedule convenient times for installing the security patches and can test whether other upgrades bundled with them are compatible with other software running on the server hardware. By doing so, businesses can avoid additional downtime that incompatibility can cause, says Nand Mulchandani, Determina's vice president of marketing and business development.

Determina must wait for software vendors to issue their patches before it can write the shields. In turn customers must wait for Determina to issue the shields, which it creates by reverse-engineering the patches to determine what lines of application code need to be altered to

See Determina, page 26

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—Rick Dempsey, Chief Information Officer, Rayovac



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# Sigaba upgrade secures outbound e-mail

BY CARA GARRETSON

Messaging security vendor Sigaba last week released an upgrade to its SigabaNet gateway software, offering companies better control over e-mail that leave their organizations.

SigabaNet Version 4.3 includes a number of enhancements designed to help companies ensure that outbound e-mails are compliant with federal regulations or corporate guidelines, and keep proprietary information, such as intellectual property, inside the company, says Nancy Chou, senior vice president of marketing

with Sigaba.

The new version includes templates that contain tens of thousands of words, codes and phrases, according to company officials. By filtering outbound e-mail through these templates, the software scans for clues indicating an e-mail includes information that must be secured, such as data related to Health Insurance Portability and Accountability Act regulations for the healthcare industry, officials say.

Once an outbound e-mail is flagged for securing, SigabaNet encrypts the message and separately authenticates users, Chou

says.

SigabaNet can secure outbound e-mails containing information related to regulations such as the Gramm-Leach-Bliley and Sarbanes-Oxley acts. The product also can flag e-mails that might contain intellectual property or inappropriate content and block them before they leave the organization, officials say.

This release also allows companies to brand all customer-bound outgoing e-mails with a company's logo or other insignia, officials say.

SigabaNet is the company's platform

upon which its products — Secure Email, Secure Statements and Secure Instant Messaging — are based. SigabaNet includes gateway software that enforces preset policies, key services for managing encryption and authentication services. Typical pricing for one of the products based on SigabaNet is \$23,000, officials say. ■

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## Cabling

continued from page 23

such as SolarFlare — say their gear will run 10G over older Category 5e links, Truelove says Category 6 at the minimum, and preferably Category 6a cabling, should be installed.

"The distances being kicked around are up to 55 meters, whereas a normal run is 100 meters," for Ethernet over UTP, Truelove says. "A lot of horizontal runs are not that long, but augmented Category 6 cabling will support that easily."

Most data center cable runs should be under 100 meters, according to Mazzetti and Associates, a data center engineering and consulting firm. Research of its own customers, ranging from corporate to educational and government sites, found that half of the UTP cabling run in data centers is under 30 meters — usually bunches of cabling, connecting switches and servers. Only about 1% of the cable installed reached the 100-meter limit of UTP.

Category 6a cabling also figures into the latest blueprints outlined in the TIA-942 Data Center Standard. This standard, put together by architects, engineers, manufacturers and users, is a blueprint for how data centers

should be physically constructed, including specifications for heating/cooling, raised floors, and the types of racks and cabling used.

The key to Category 6a is its higher-frequency support — up to 500 Mhz, twice the bandwidth of Category 6, which is 250 Mhz. The higher megahertz support allows cabling to handle the greater amount of noise and crosstalk that occurs on a wire when 10G bit/sec instead of 10M, 100M or 1000M bit/sec are running over the wire pairs.

"If you don't measure and control these things and you run signals at a higher frequency, all of a sudden strange things can happen," says Luc Adriatsos, vice president of R&D at Systemax, a maker of structured cabling. "With Category 6a, it's qualified to run at that high level, so there won't be any issues."

"For new data centers going in, we strongly recommend Category 6a. Also,

knowing that 10G in data centers is coming very quickly," Adriatsos says.

Cabling specialists estimate that Category 6a costs 20% more to run than Category 6. Users also can expect to pay almost a 50% price difference between Category 5e and Category 6a. ■

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## Determina

continued from page 23

fix vulnerabilities, Mulchandani says. Writing a shield takes 12 to 24 hours after a patch is received, he says.

The company writes shields for all enterprise Windows applications and Citrix, and is testing with other vendors, Mulchandani says. It does not write them for custom applications that businesses might have written for themselves, he says.

Determina's intrusion-prevention software

competes against Sana Security, Network Associates with its Enterecept software and Cisco with its Security Agent. Start-up PivX also has a host-based IPS, although none of these has code-mending software like LiveShield. Blue Lane's Patch Point software, which it calls a patch proxy, also performs a similar function to that of LiveShield.

LiveShield is scheduled to be available at the end of the month. It comes bundled with Memory Firewall for \$750 per server. Memory Firewall without LiveShield costs \$500 per server. ■

# Cisco tackles RFID in the network

BY JOHN COX

Cisco last week took the first step in building into its network hardware new software that will help users more easily handle RFID traffic.

Cisco announced a board that slots into its 2800 or 3800 routers, and a blade for the Catalyst 6500 switch chassis, with software from Cisco and an embedded version of ConneCTerra's RFTagAware middleware for RFID.

These devices now can filter raw RFID traffic at the edge of the network, as well as pass it through to data center switches where it can be collected and managed, and passed on to applications. The Cisco code, with ConneCTerra's software, lets administrators create policies on where and how RFID traffic is to be handled in the network, then distribute these policies to Cisco routers and switches.

The new product is called Cisco Application Oriented Network (AON) for RFID Solution and is priced at \$16,250. It is set to ship in October. AON is Cisco's effort to create software that will let its network gear route and manage traffic based on the content of application messages, such as purchase orders or stock trades, rather than lower-level, generic packets.

The overall goal of the new RFID board is to help corporations install and run large numbers of RFID tags and readers, and then manage these and their traffic as part of their existing corporate networks.

"With RFID, a whole bunch of network services around it will be provisioned in the [Cisco] network," says Mohsen Moazami, vice president of retail and distribution at Cisco and the person in charge of the vendor's RFID efforts. "Those services include security, location awareness, device management, filtering and prioritization."

The new hardware module also lets the network devices apply QoS policies, take action on RFID events at the edge of the network and shield back-end applications from having to know details about specific RFID readers or servers.



Other elements of Cisco's RFID push include recently created and expanded consulting services to help customers with various phases of RFID deployment; partnerships with software vendors who are supporting the embedded Cisco software; and the company's 802.11 wireless LAN-based tagging and tracking product, the Cisco 2700 Wireless Location Appliance, from its Airespace acquisition.

The new package of consulting services includes a readiness assessment of a customer's existing network infrastructure and an RFID pilot program.

A key partner for Cisco is ConneCTerra, which provides infrastructure software for RFID and client devices. Also announced were partnerships with Intermec and ThingMagic for active RFID tags, and PanGo Networks. ■

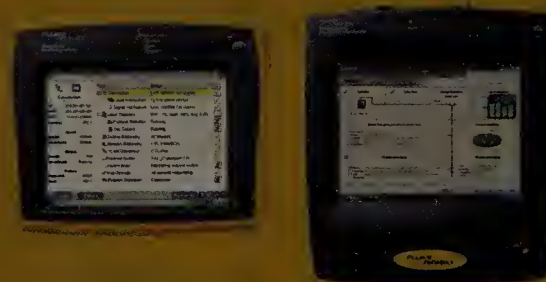


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The author is grateful to the referees for their comments. 4110-15-1004 © 2004 John Wiley & Sons, Inc.

## Is security ripe for outsourcing?

**by Dr. M. S. Smith**

As a veterinarian, I have frequently been asked about the "best" management system for a horse. I have never been able to give a simple answer. The best management system for one horse may be completely inappropriate for another. The best management system for a horse is one that is based on the horse's individual needs. The best management system for a horse is one that is based on the horse's individual needs. The best management system for a horse is one that is based on the horse's individual needs.

# for outsourcing?

by David Green

So what's the deal? Is it really as simple as it seems? If you're considering outsourcing, you need to know the pros and cons. Here are some of the most common reasons why companies outsource:

- **Cost Savings:** Outsourcing can be a cost-effective way to reduce expenses. Companies can save money by outsourcing to countries with lower labor costs.
- **Access to Expertise:** Outsourcing allows companies to tap into the expertise of specialists in a particular field.
- **Flexibility:** Outsourcing provides companies with the flexibility to scale their operations up or down as needed.
- **Focus on Core Competencies:** Outsourcing non-core functions allows companies to focus on their core competencies and drive growth.

However, there are also risks associated with outsourcing. Companies need to carefully evaluate the risks and benefits before making a decision.

**Key Risks of Outsourcing:**

- **Quality Control:** Outsourcing can lead to quality control issues if the company is not properly managing the relationship.
- **Communication:** Outsourcing can lead to communication problems if the company is not properly managing the relationship.
- **Intellectual Property:** Outsourcing can lead to intellectual property issues if the company is not properly managing the relationship.
- **Dependency:** Outsourcing can lead to dependency on the outsourced company, which can be a risk if the company goes out of business.

Overall, outsourcing can be a valuable tool for companies, but it's important to carefully evaluate the risks and benefits before making a decision.

[illegible]

## **Keeper track of NASCAR**

The photograph shows a dark, textured surface, possibly a rock or a piece of wood. There are some faint, illegible markings on the surface, which appear to be part of the original document's content. The image is grainy and has a high contrast, making it difficult to discern specific details.

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# ENTERPRISE COMPUTING

■ WINDOWS ■ LINUX ■ SERVERS ■ STORAGE ■ GRID/UTILITY ■ MOBILE COMPUTING

## Short Takes

■ **Intradyn** last week launched a version of its e-mail archiving appliance, ComplianceVault06, which includes a new user interface, enhanced search capabilities, the ability to export search results to a file, CD, e-mail or hard copy and additional audit features. The appliance, which also can encrypt tapes, stores e-mail on disk and tape. The new version, available in a 1U (1.75-inch high) rack-mounted enclosure, starts at just under \$10,000.

■ **Permabit**, a Cambridge, Mass., maker of storage boxes for electronic archiving and record retention, says it has received \$12 million in third-round funding, bringing its total to \$32 million. The new capital will be used to hire marketing, services, sales and support staff, the company says. Baker Capital led the venture round.

■ **Quest Software** last week announced storage-management software for Microsoft Exchange environments that lets customers manage their e-mail system use and meet compliance requirements. The Quest Storage Suite for Exchange is integrated with the Microsoft Management Console and includes traffic analysis and reporting capabilities, archive software and e-mail recovery. The suite includes Storage Consolidator for Windows, which automates the migration of data, and Storage Manager for Windows, which collects capacity metrics, so administrators can delete data or update the ownership of files. Quest Storage Suite for Exchange is available for \$40 per user mailbox.

■ **Sun** this week is expected to roll out servers based on an updated SPARC chip that enables faster processing at the same price as existing UltraSparc IV boxes, which start at about \$30,000 for a two-processor configuration. The UltraSPARC IV+ will run at 1.5 GHz, compared with the 1.3 GHz UltraSPARC IV. UltraSPARC IV+ has a 2M-byte L2 cache and a 32M-byte off-chip cache.

## Quantum, ADIC boost backups

BY DENI CONNOR

Quantum and ADIC announced separately last week products designed to let customers use a mix of tape cartridges to archive data and support information life-cycle management.

The ability to intermix media types, including Limited Tape Open (LTO), Super Digital Linear Tape (SDLT) and Ultra Density Optical (UDO), is an increasingly important feature, says Dianne McAdam, senior analyst at the Data Mobility Group.

"If the SDLT cartridges can store more capacity than the LTO cartridges, then you can tell the back-up software to send large jobs to the SDLT pool and smaller jobs to the LTO pool," she says.

Quantum's PX500 Series consists of the PX502, PX506 and PX510 modular systems for backing up, recovering and archiving customer data. The systems include Quantum's FlexLink architecture, which allows them to be stacked and linked via infrared technology.

"Scalable growth is very cool, but I like that in three years you can rip them apart and let different departments repurpose them. They have a far longer useful life than most tape libraries," says Steve Duplessie, senior analyst at the Enterprise Strategy Group.

The PX500 series can be configured with SDLT 600, LTO-2 or LTO-3 drive cartridges. They also support hot-swappable drives, redundant power supplies and SCSI or Fibre Channel connectivity. A Web-based management console also is available.

The models range from 4U to 18U in size and support as many as 576G bytes of data an hour on the low end to 2,880G bytes per hour on the high end. The smallest of the new boxes starts at less than \$12,000; the high-end system starts at \$33,000.

### Archiving support

ADIC's AMASS 5.5 is nearline archiving software for network- and direct attached storage environments that supports ADIC, as

well as tape libraries and DVD and optical libraries from such vendors as IBM and Sun.

AMASS 5.5 has the capability to support mixed media — including SDLT, LTO, AIT or UDO — and migrate data from one media type to another. This means that customers can manage large, file-based data sets over long periods and enable policies that automatically direct the migration of data.

AMASS 5.5 includes ADIC's Infinite File Life (IFL) technology to support all generations of LTO tape media. IFL tests the integrity of data stored on an LTO cartridge and send it to new media when specified error-rate thresholds are met.

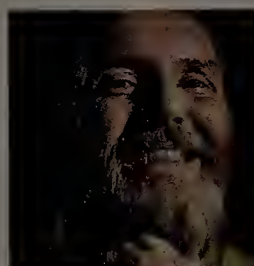
AMASS 5.5 starts at \$14,800. ■

## STORAGE

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### WIRED WINDOWS

Dave Kearns



Just as Bill Gates "discovered" the Internet and the World Wide Web in 1995, he evidently woke up recently to discover there was another niche that his company wasn't serving adequately — the midsize market. Never mind that "SMB," for small and midsize business, has been with us for many years, used even by Microsoft in its marketing efforts. No, there's too much difference, evidently, between an organization with 25 PCs and one with 75, both in terms of their software needs, as well as in the expertise they have to run that software.

Redmond's recently announced "Centro" server system is aimed squarely at that well-defined (ha!) midmarket segment — the organization with 25 to 500 PCs. Recall, though, that Microsoft's Small Business Suite is aimed at organizations with 50 PCs or fewer. Why the overlap? According to Steven VanRoekel, director of midsize business solutions strategy at Microsoft, one dif-

## SMB: Size doesn't matter

ferentiator is staff. The midsize organization has "an IT person on staff that actually manages the systems in place. They have an IT budget."

But there's also a difference between a midsize company and a corporation, according to VanRoekel: "The IT staff tends to have very limited resources in terms of time, money and personnel. [Midsize] companies tend to have one or two people that not only manage the server infrastructure, but also the desktops or the fax machines and pretty much anything with a plug or a wire." What they need is management help, and that's what Centro brings to the table.

Centro will have the same Windows Longhorn server that small businesses and large companies will use. It will include Exchange server, like the Small Business Suite. But it will have a "next-generation management experience, plus next-generation security technologies, brought together into a single solution specifically designed for the IT professional in midsize businesses," VanRoekel says. Doesn't that give you a warm and fuzzy feeling?

A better management solution is nothing to sneeze at, but organizations large and

small need it. The number of platforms doesn't define either the breadth or the intensity of your IT effort any more than the number of telephones in an organization typifies its marketing effort.

If Microsoft truly was listening to its customers, then it would know we want these services and applications, but also that we want to customize our own solution set to fit the needs of our business — no matter how many PCs we have.

*Kearns, a former network administrator, is a freelance writer and consultant in Silicon Valley. He can be reached at wired@vquill.com.*

## Tip of the Week

■ Gates and Co. repositioned some applications (Great Plains, Solomon) for the midrange market ([www.networkworld.com](http://www.networkworld.com), DocFinder: 8924). This isn't about new software or functionality, but about fighting the Linux and Oracle efforts in midsize organizations.



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# APPLICATION SERVICES

■ CRM ■ MESSAGING/COLLABORATION ■ WEB SERVICES ■ ERP ■ E-COM ■ NETWORK AND SYSTEMS MANAGEMENT

## Oracle's spree changes CRM landscape

BY JOHN COX

In the beginning, customers won't see any major changes as a result of Oracle's decision to buy Siebel Systems last week. Most of the short-term benefits will be reaped by Oracle over the next calendar and fiscal years, as Siebel's software licenses, maintenance contracts and consulting fees fatten Oracle's revenue and profit results.

But in the long term, corporate executives will have to assess how successful Oracle is with Project Fusion, the company's ambitious new architecture designed to create a common foundation for its applications, including four separate CRM offerings: Oracle's own; PeopleSoft, which Oracle acquired in January; JD Edwards, which PeopleSoft bought while it tried to fight off Oracle's hostile takeover; and now, Siebel.

Siebel markets a suite of CRM applications, including versions tailored for several vertical industries, such as manufacturing and distribution, telecom, life sciences, financial services and public sector. Its list of top customers reads like a who's who of high tech: IBM, HP, Microsoft, Cisco and Sun, as well as Deutsche Telecom, General Motors and Bank of America.

Oracle's first goal will be to take care of the flood of new customers using software developed by someone else. "In the short-



term, Oracle is working very hard to maintain customer satisfaction and minimize concerns about support," says Stuart Williams, an analyst who focuses on enterprise applications for Technology Business Research.

So far it seems to be working.

"We're a fairly substantial JD Edwards customer, and we haven't seen any negative impact with respect to that," says Stephen Pickett, vice president and CIO of Penske, a transportation services company in Bloomfield, Mich. "We are running Siebel at one of our subsidiaries. It's good to hear that Siebel now has a deep pocket, which it didn't have before and I think it would continue [soft-

ware] development. More and more of our software is running on Oracle, and so far they've been a viable partner."

But this continuity hides the fact that Oracle is in the midst of a market-shifting transformation. "Oracle has taken a huge lead in the CRM marketplace," Williams says. "They've completed their transformation from being just a database company to

being a company with database, middle-ware and applications."

This is the core software stack that big corporations rely on to run their businesses. Increasingly, these corporations want these applications built on a consistent framework, says Peter Kelly, senior analyst with Burton Group, an IT research firm.

See Oracle, page 34

### Short Takes

#### ■ Start-up management vendor

**Kace** has announced the second generation of its flagship appliance and software product, KBOX IT Management Suite. The appliance is connected to a network and distributes software agents to managed devices upon installation. Version 2.0 supports two add-on modules that Kace says will help small and midsize companies perform vulnerability scans and machine audits. The latest version also adds automatic remote discovery, remote-control features and upgraded patch management utilities. KBOX IT Management Suite 2.0 costs \$7,500 for a 100-node network and about \$20,000 for a 1,000-node network.

■ **Peregrine Systems** last week announced Enterprise Discovery 2.0 software, which the company says will help customers discover, inventory and manage hardware, software and network devices. The software works with or without agents, depending on the level of detail desired, and captures cross-platform configuration data on desktops and servers. It then populates a database with the software inventory information. Peregrine says it can capture as many as 1,500 attributes. Enterprise Discovery 2.0 is available, and an average implementation can cost between \$75,000 and \$100,000.

## Start-up takes aim at Salesforce.com

BY JENNIFER MEARS

A start-up that delivers applications over the Web, iRadeon aims to beat Salesforce.com at its own game by bringing a lower-cost, easy-to-deploy alternative to the CRM software market — and it's doing it with a twist: open source.

The company, which launched in 1999, began delivering a handful of open source applications on demand last summer, including NETOffice open source project management and ATutor open source e-learning software. This week, the company is scheduled to roll out an updated version of its hosted open source CRM offering, SugarCRM 3.5.

The package costs \$150 per month for 25 users compared with Salesforce.com's starting price of \$1,625 for the same number of users.

It's the same kind of proposition Salesforce.com introduced to the market when it launched six years ago. At that time, Salesforce was the only firm to deliv-

er a hosted CRM application, meaning that end users could simply tap into the software rather than having to wrestle with large-scale and expensive in-house deployments.

Tim Krozek, director of sales at Efficient Frontier, a search engine marketing firm in Mountain View, Calif., says he used Salesforce.com for years because it was more affordable.

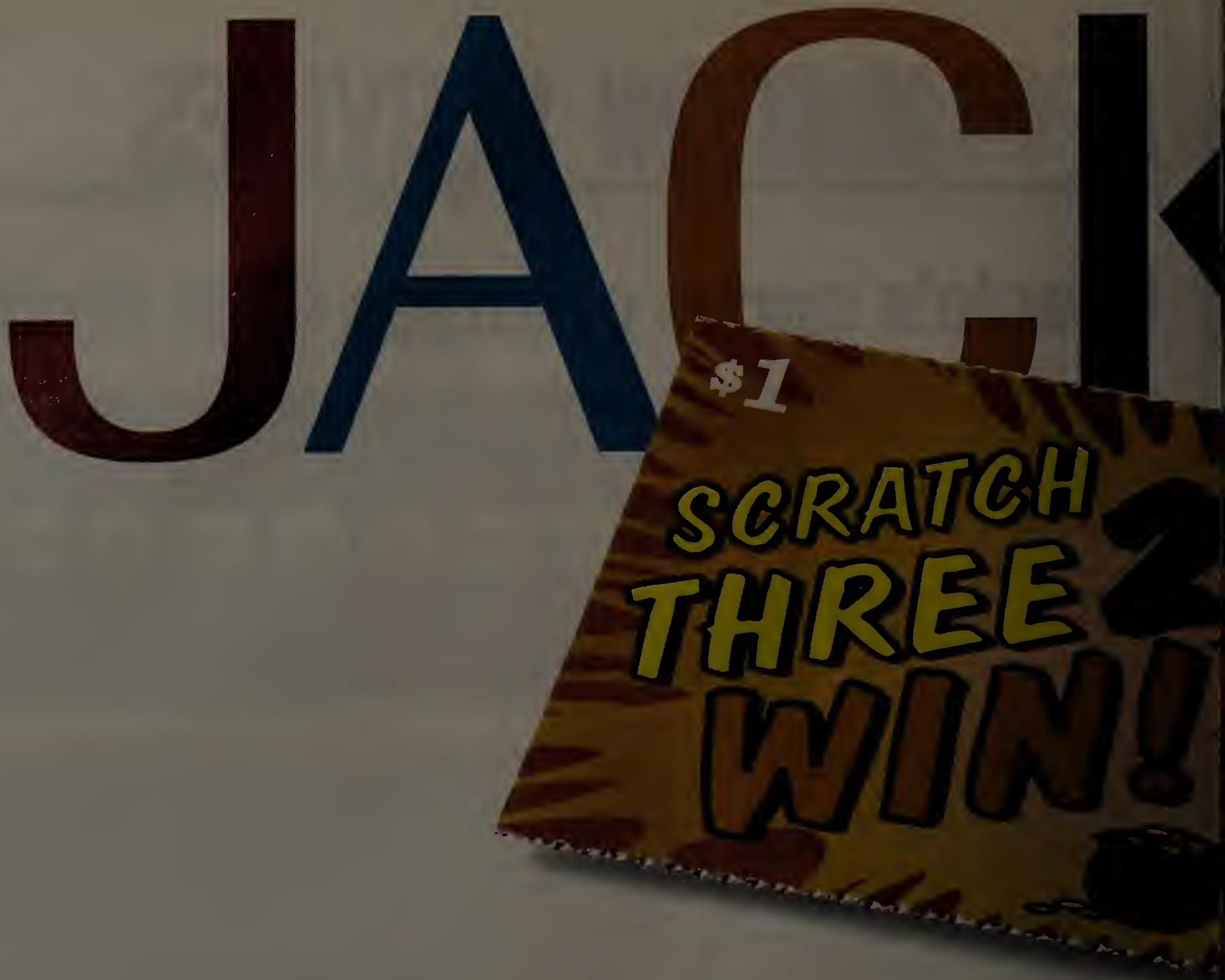
"A few years ago, Salesforce was right because there was no other game in town," Krozek says. "You had to use Siebel or something like that or something less than optimal like Outlook. To deploy some large Siebel system is incredibly pricey."

Efficient Frontier recently switched to iRadeon, however, because the small company was running into pricing issues as it looked to add more users to the CRM system, Krozek says.

"We were paying in the neighborhood of about \$600 a month for Salesforce, and we

See iRadeon, page 34





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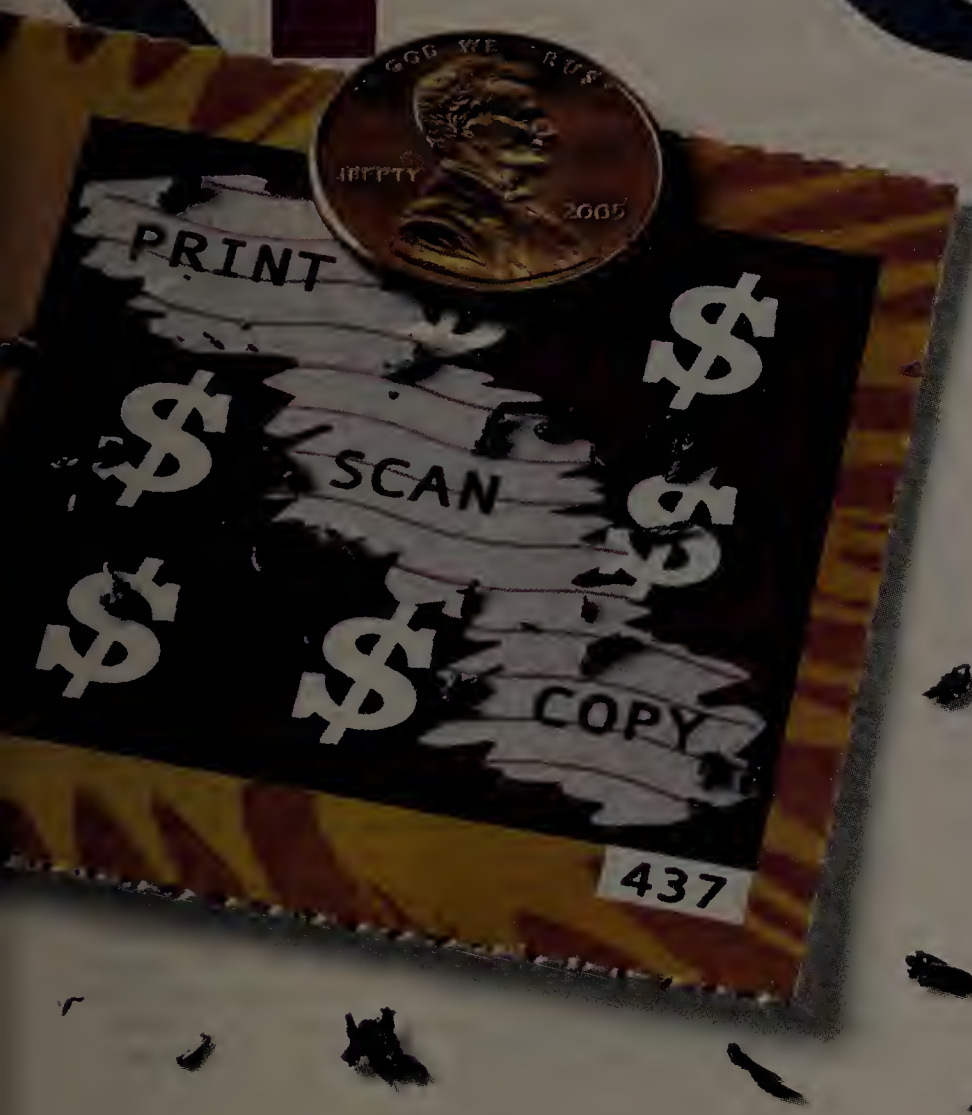
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**NET INSIDER**  
**Scott Bradner**

# Cerf moves up the stack

In a great move, Internet pioneer Vint Cerf has just moved up the Open Systems Interconnection stack from Layer 3 (networking) to Layer 7 (application) by leaving MCI and joining Google as chief Internet evangelist.

Maybe he was just escaping the fate of becoming an internal body part of a local telephone company and the prospect of having to work with the company on Internet-related technical issues. Or maybe Google offered him a

deal he was too smart to turn down.

Whatever the reason, the move is a great symbol of a value move that has been accelerating with the shift to converged networks. According to the FCC, telecom business in the U.S. totaled about \$295 billion in 2004. I could not find a table that said how much of that is taxes of various types. If my home bill is any guide, it could be as much as one-quarter of the non-wireless part and a bit less than 10% of the wireless part. Certainly, telecom has been a cash cow for governments.

But what is the future of this business? If long-distance and cell phone prices provide any guide, revenues will go down by a factor of five to 10 over the next five years — mostly because of com-

petition. If instead you use local phone service as a guide, the price will go up by a factor of three over the same time period. My bet is on steep reductions. There is just too much competition in the voice business with cell phones and from the Internet (VoIP, video chat and e-mail). I also expect that telecom companies will be in for some very lean times, with more going through consolidation, bankruptcy or just going out of business.

Of course, governments could fix their declining revenues by raising tax rates. Cerf was instrumental in creating the Internet-as-transport system that we are just learning how to use to its full potential. He helped to define the technology, deploy the ARPANet, and nurture the IETF as the

Internet standards organization and the Internet Society to help bring the Internet to most of the world. Recently, he helped manage Internet Corporation for Assigned Names and Numbers, the coordinator of key Internet functions. Thus Cerf has concentrated on the transport and political layers of the OSI stack.

Now he has moved directly to the application layer, to just where the most exciting action is and will continue to be as long as the telecom industry lets it be. Google exists because the Internet is open. No one needed to give Google permission to run over the Internet, and Google did not need to work out payment plans to compensate the telecom industry for the use of "its" network. In my mind, I pay for Google to use the

Internet, at least the path to me, with what I pay my ISP.

I cannot imagine a place more suited for Cerf. Google is easily the most dynamically innovative company in the whole Internet space. I expect Cerf will suddenly feel much younger, like back in the early days of what became the Internet, where everything was possible and nothing was predictable.

Disclaimer: For good students at Harvard anything is possible and little is predictable, just as it should be. But I know of no university opinion on Cerf's change of employer.

*Bradner is a consultant with Harvard University's University Information Systems. He can be reached at sob@sobco.com.*

## Oracle

continued from page 31

That's what Oracle is attempting to do with Project Fusion — a grand scheme to devise a new framework for all its applications. These next-generation applications will be based on a service-oriented architecture (SOA), Web services and XML.

### A question of Fusion

Project Fusion is intended to create a common data model and application architecture to let CRM and other enterprise applications, such as supply-chain management, procurement and financials, all work together smoothly.

Oracle CEO Larry Ellison

last week made it clear that the future Fusion CRM product will be driven by Siebel's software expertise. "There's no question that Siebel products are more broadly deployed and more feature-rich," he said during the press conference announcing the \$5.8 billion deal. "And they will be the centerpiece of our [CRM] strategy going forward." The first components of this new product are due out in 2007.

Other components in the complete Fusion stack will be project management, collaboration programs and business intelligence. The entire grouping will be designed so it can be tailored to fit different markets, such as public sector, manufacturing, life sciences, retail and healthcare.

"If there's an Achilles' heel in Oracle's plan, this is it," Williams says.

"It comes down to how effectively and quickly Oracle can pull these elements together," says Burton Group's Kelly. Oracle

archival SAP AG and Microsoft in the midrange market are also attempting similar efforts. The result, Kelly says, will be "super platforms" that offer end-to-end

**"It comes down to how effectively and quickly Oracle can pull these elements together."**

*Peter Kelly, senior analyst,  
Burton Group*

functionality.

A related project is Oracle Fusion Middleware, the first components of which are scheduled to be released this week. This project consolidates a range of Oracle middleware products, all based on an SOA foundation: Oracle Application Server 10g; other Application Server products and options; Oracle Data Hubs; and Oracle Collaboration Suite applications.

Williams expects this week's

## iRadeon

continued from page 31

had about nine users," he says. "Ultimately, what we're hoping to do is get our client services on board and some of our engineering operations on board with a centralized product. To add those people [to Salesforce.com] would have been really, really cost-prohibitive."

Analysts say iRadeon, which markets to small and midsize firms, as well as departments within larger companies, is tapping into an area where there is growing demand. A recent sur-

Fusion Middleware news to focus on SOA connections and interfaces, which will let Oracle add an SOA layer around chunks of existing software, and make these functions and applications easily called, and used, by other components.

Another question involves how aggressively Oracle embraces online applications.

### Siebel CRM faltering

Siebel in the past few quarters has been promoting, with mixed results, its hosted CRM offering, Siebel On-Demand, partly in response to the success of hosted CRM market leader Salesforce.com and several other online application vendors.

## On demand

IT managers spent about **\$300 million** for on-demand CRM applications in 2004, according to IDC.

vey by Nucleus Research of 29 Salesforce.com customers found that while they were happy with Salesforce.com, 38% were planning to or would consider moving to another CRM provider.

Others, such as NetSuite, RightNow Technologies, Salesnet

and Siebel also offer on-demand CRM. But Rebecca Wettemann, vice president of research at Nucleus, says iRadeon is unique because it is offering an open source alternative.

"Until we see more packaged applications coming out in the open source world, going to on-demand is a great way to get value out of something like CRM and project management without having to make the investment in custom development that using open source typically requires today," Wettemann says. "This removes a pretty big stumbling block for small companies." ■

In fact, Siebel unveiled the latest version of its CRM On-Demand software, Release 9, on the same day the sale of the company was announced. CRM OnDemand 9 is Siebel's fourth release of its hosted CRM software this year. The new version integrates with IBM's Lotus Notes Groupware, as well as Siebel's own hosted contact center, Contact OnDemand, and the company's on-premises CRM software.

Corporate users and channel partners can customize CRM OnDemand to enable them to brand the applications as their own before they deploy them to their staff and customers, Siebel says.

Siebel hopes that adding full

support for Lotus Notes will attract more customers. Previously, the company's software supported only Microsoft's Outlook groupware.

Meanwhile, Ellison emphasizes how important the online business is to Oracle's future. "It's a key part of our strategy and a key reason for us to do the deal," he says. "We intend to invest heavily in the OnDemand products. And I think the features in the [corporate] software will continue to migrate to the OnDemand product." ■

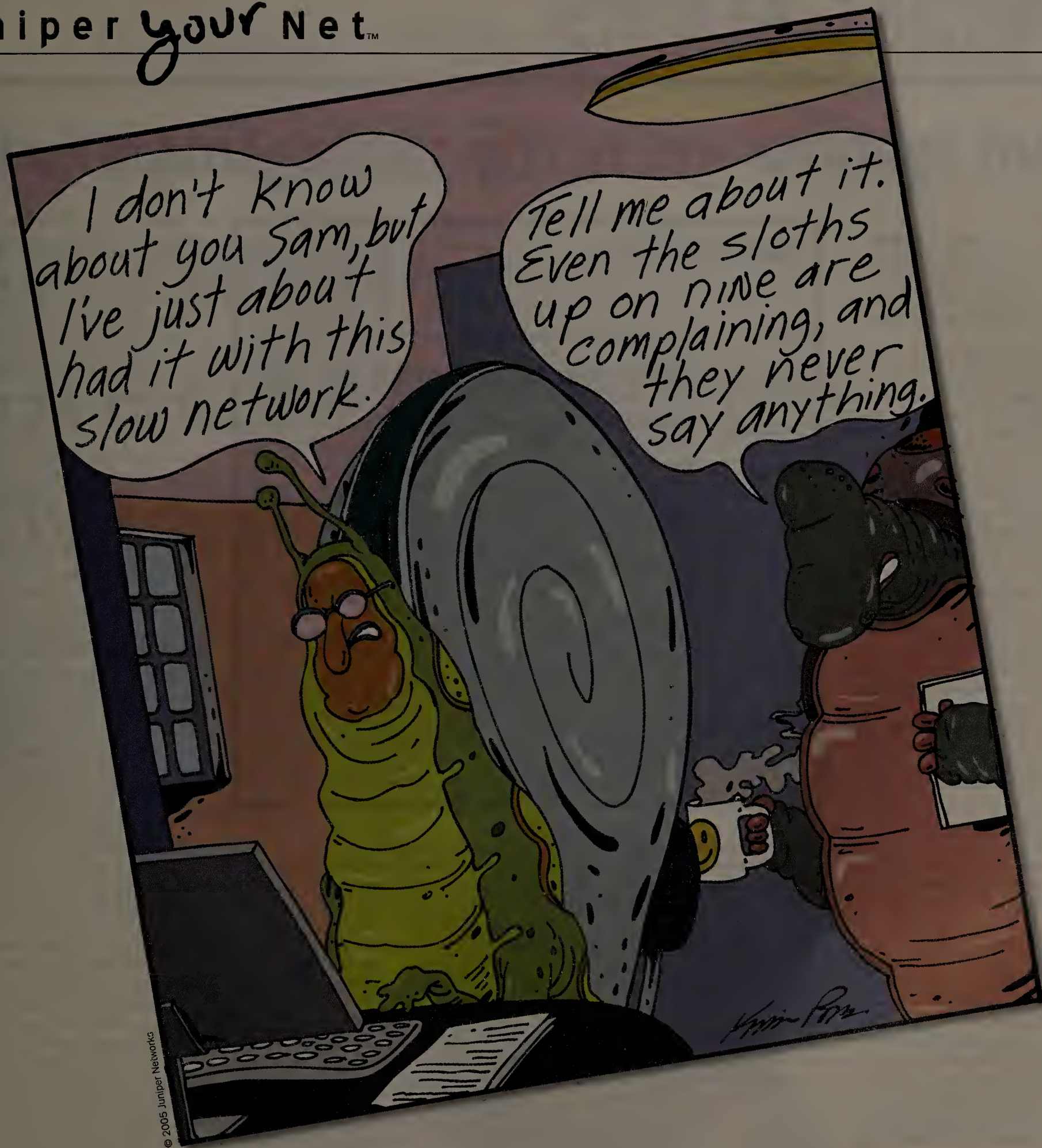


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## SPECIAL FOCUS

## DESKTOP MANAGEMENT

# Client systems get better management tools

BY DENISE DUBIE

Managing client devices presents a conundrum to IT managers looking to monitor activity, secure systems and improve performance across disparate machines that require constant attention and upkeep.

Best practices would dictate standardization as the logical way to monitor thousands of like systems, but achieving homogeneity among client devices is nearly impossible. Desktops — and other client devices such as laptops and PDAs — can vary widely across a large company. Diversity among machines can range from the applications end users employ to various versions of operating systems to customized interfaces and the hardware sitting on the desktop.

"We are a schizophrenic organization. On the one hand, we are corporate and have standardized machines and controls in place, and on the other hand, we are like a college campus with unknown devices logging on to our network," says Ethan Fener, associate director of IS for Partners HealthCare Systems in Wellesley, Mass. "We have about 27,000 machines that are closely aligned and potentially an equal number of IP addresses for machines that are not standard. There is no way to achieve 100% certainty and visibility into each machine."

But users are trying the use of client-management systems is on the rise. According to a 2004 Forrester Research survey of 137 IT managers, 92% of companies use client-management tools or software, while 69% of small and midsize businesses (SMB) report doing so, as well. In response, vendors have augmented their products to better address the range of capabilities needed to tackle client systems.

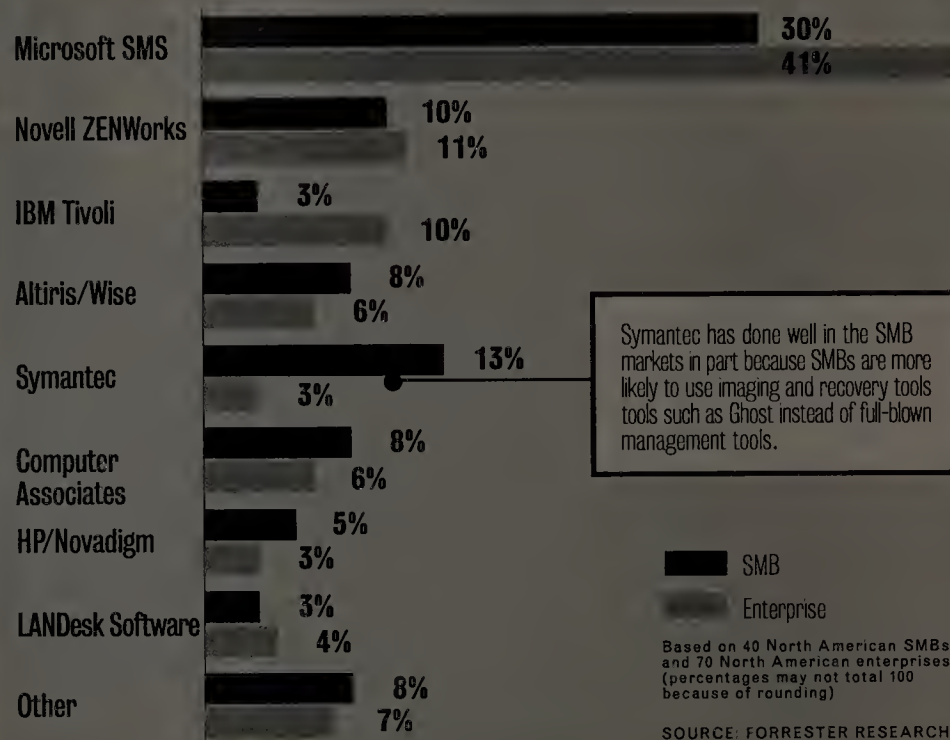
For instance, HP acquired Novadigm to improve its client-management tools and recently made available a scaled-down version of its software to appeal to the fast-growing SMB market, which Yankee Group estimates includes about 6 million companies with two to 1,000 employees. Companies such as Symantec and BigFix have expanded capabilities in their software suites beyond security and patch management, respectively, to include more systems-management capabilities.

And Altiris, LANDesk and Computer Associates have augmented their systems-management portfolios with more security-specific offerings, such as spyware detection. Yet Microsoft leads the market for

## Dominating desktops

When asked which client-management system they used, a majority of 110 IT executives indicated that large systems-management tools fit the bill.

Who is your primary vendor for commercial client-management software?



client-systems management (see graphic), possibly because the company included SMS with its Back Office bundle, and SMS was often sold as part of corporate license agreements, Forrester speculates.

Adding to the management challenge, client systems demand much more than availability monitoring. IT managers must track end-user systems for security, compliance, software license and inventory purposes, among other things. In fact, the coming together of once-separate IT tasks is probably best demonstrated when managing client machines. Consider patch management, which couples vulnerability scans and configuration management with software distribution capabilities.

"There is a big convergence right now in terms of endpoint management. The whole operational discipline is becoming critical for security," says Peter Firstbrook, a research director at Gartner. "Standardization would be great, but it's not likely, so IT managers need to get processes and procedures in place that technology can ultimately automate for both operations and security management on endpoints."

To address the issues, IT managers tend to cobble together multiple vendor products with time-consuming manual efforts. Fener couples Reflectent EdgeSight software for monitoring client machines with Altiris tools for software distribution.

The standard machines at Partners HealthCare Systems are built so that patch management, anti-virus and group policies can be strictly enforced. Fener says owners of "non-standard machines are strongly encouraged to adopt similarly good management practices, in which anti-virus protection and patch management capabilities are made available yet not mandatory."

Despite the technology in place, Fener still has to manually address some issues. He explains, for instance, that if he achieves a 90% success rate in rolling out a patch to 27,000 machines, 2,700 machines remain that must be addressed one by one. "Scale is a different issue when it comes to managing desktops," he says.

Craig Bush, network administrator at Exactech, an orthopedic and medical device provider in Gainesville, Fla., uses Microsoft Windows Update service to scan

and patch nearly 225 end-user machines, primarily because it's free. He also has Symantec anti-virus in place and Script-Logic's Desktop Authority software to remote-control into client machines. And he manually performs asset inventory. In a smaller company, he faces challenges similar to a larger one, but does not have the resources to roll out a large systems-management tool that encompasses systems and security.

"It would be nice to have one management console. We centralize management as much as possible now, but something like SMS is too large a product to implement, is very expensive to roll out and probably very complex to configure and administer," Bush says. "We'd need another full-time person to manage that."

Matt Giblin, senior systems analyst at Mercy Health Services in Baltimore, approaches client management differently. He decided upon one vendor, Altiris, which he says he believed could address the spectrum of management and security needs.

"We wanted to combine our client-management system with our help desk without integrating into other systems," he says. Standardizing with one management vendor helped Giblin manage the life cycle of the devices, from provisioning to retirement. "We wanted to be able to track the cost, performance and life of an asset once it enters our environment for performance and budgetary purposes," he says.

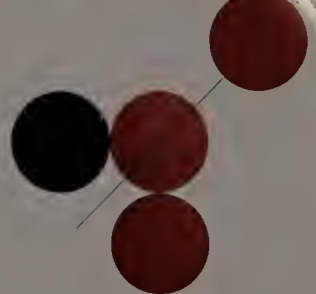
Yet he still finds challenges in managing client devices. Among them is keeping up with systems and software; despite his best efforts to standardize the software and systems on machines, changes happen.

"The pendulum has shifted from hardware being difficult to support. Now the operating systems and applications are complex, and it has to get easier to support multiple operating systems and applications," Giblin says. "It's an always-changing environment, and it's critical just to keep up with the changes."

Industry watchers say such complexity is expected to grow for enterprise companies.

"The current approach to managing the devices will fail in time as systems get more complex and diversity increases, such as with Linux on the desktop," says David Friedlander, a senior analyst with Forrester. "It's already a challenge to standardize and maintain one operating system, remove complexity and reduce overhead in managing end-user devices." ■





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SUN FIRE X4100

SERVER OF THE MONTH



*Sun Fire xoxo*





## SERVER DATA SHEET

NAME: Sun Fire™ X4100

BORN: September 12, 2005

HOMETOWN: Menlo Park, CA

MEASUREMENTS: 1.69"H x 16.75"W x 24.88"D (I'm petite and powerful, with plenty of room for cables.)

I LOVE: Naughty ROI talk, multiple platforms, dimly lit data centers.

RUINS THE MOOD: Energy hogs, high-maintenance technology, big and nasty servers.

MY FAVORITE BODY PART: Definitely my Dual-Core AMD Opteron™ processor. It gives me the uncontrollable desire to run Solaris™ (my fave), Linux, Windows and Java™ at record-breaking speeds.

THE DIRT ON ME: I have quite the reputation for being fast. Not to brag, but I'm over 70% faster than the competing Xeon server.<sup>1</sup>

ACCOMPLISHMENTS: Let's just say I know what I'm doing in the data center. Performance tests prove I can take on twice the work with half the servers. Not bad for a server starting at \$2,195.

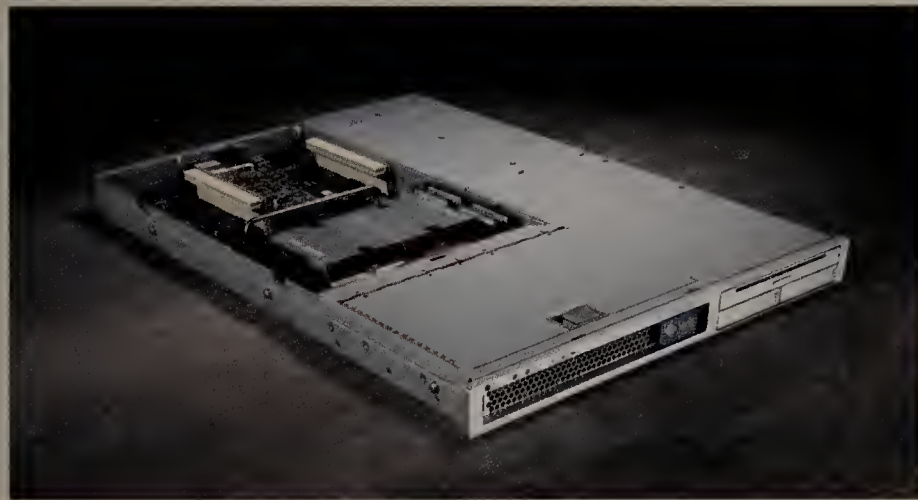
MY IDEA OF A GOOD TIME: Working my dual-processor magic to provide 56% power savings over Xeon.<sup>2</sup>

AMBITIONS: I'd like to eliminate boundaries and create a better world where everyone can truly collaborate. Oh, and swim with dolphins.

WORDS TO LIVE BY: Silicon, not silicone.



My active lifestyle helps me really appreciate nature. That's why I'm into conserving energy.



I'm not afraid to show off the goods and prove that beauty is more than satin aluminum skin deep.



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<sup>1</sup>The comparison is based on SPECfp\_rate2000 benchmark. SPEC and the benchmark name SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. Competitive benchmark results reflect data published as of 08/23/05. For the latest benchmark results, visit <http://www.spec.org/>. The Sun Fire X4100 server (2xAMD Opteron processors Model 254, Solaris 10): SPECfp\_rate2000 - 53.8. The Dell PowerEdge 1850 (2xIntel Xeon 3.6 GHz, MS Windows): SPECfp\_rate2000 - 31.4. Sun's results were submitted to SPEC.

<sup>2</sup>It takes 60% less power to drive one Dual-Core AMD Opteron processor than the two Intel Xeon MP processors required to provide the same amount of CPU core resources.



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## Might SBC become the 'new AT&T'?

Branding decision remains up in the air as regulatory process plays out.

BY DENISE PAPPALARDO

While SBC awaits state and federal approval of its \$16 billion acquisition of AT&T, the company also appears to be mulling its branding options.

According to published reports, SBC is considering ditching its own brand — SBC stands for Southwestern Bell Communications — and replacing it with the better known AT&T name. SBC says no official decision has been made.

However, the company has spoken highly of the value of the AT&T name.

"We value the heritage and strength of the AT&T brand, which is one of the most widely recognized and respected names throughout the world, and it will certainly be a part of the new company's future," said Edward Whitacre, SBC chairman and CEO in January.

Experts see the decision going either way.

"If SBC sees local as its primary importance, then AT&T may be a brand only for its enterprise services, but the merged company would still be SBC," says Lisa Pierce, an analyst at Forrester Research.

"If SBC envisions itself as becoming a truly global player, there should be no question about taking on the AT&T name," she says. "It all depends on what they envi-

sion themselves as becoming."

Pierce says that if SBC truly wants to embrace AT&T's global presence, it should also move its headquarters to the New York metropolitan region. The executive talent should be in New York or New Jersey, not Texas, she says.

"We have done some consumer perception surveys. Up to 10% still think they get their local service from AT&T," Pierce says. "AT&T is a much stronger brand domestically and internationally."

In the mid-1980s when AT&T divested its

### What's left

The merger between SBC and AT&T still needs approval from:

- Arizona
- California
- New York
- Ohio
- Pennsylvania
- FCC
- Department of Justice

local properties under court order, the company put much effort into building its brand. It was forced to stop using the "Bell" name, which was synonymous with telephone service. For nearly 25 years AT&T has built and maintained its brand. Some believe it would be silly for SBC to throw that away.

"SBC has no international presence," says Brian Washburn, analyst

at Current Analysis. "If SBC replaced the AT&T brand internationally with the SBC name, it would be starting from square one."

"The AT&T name is a great brand," Washburn says. SBC has two choices. It will either completely change everything to the AT&T brand or use it only for specific offerings under the SBC umbrella, he says.

Washburn also questioned how or if SBC will be able to leverage the AT&T brand with wireless business users. SBC owns 60% of Cingular Wireless. Bell South owns the remaining 40%. It seems unlikely that Bell South would allow SBC to change the name of the wireless service provider to AT&T Wireless, he says.

But Washburn says SBC might be able to sell Cingular services to AT&T business customers as AT&T Wireless-branded services, similar to a mobile virtual network operator arrangement. SBC has not made any public statements about its branding plans regarding Cingular. ■

### EYE ON THE CARRIER

Johna Till Johnson



Several folks have written to comment on the 250% increase in overhead I attributed to IPv6 in my previous column on the topic. They're right. The number is overstated, for a rather embarrassing reason (got my bits and bytes confused — spent too long away from a protocol analyzer).

But while my initial figure was clearly incorrect, determining the actual figure was more challenging than either my readers or I had anticipated. More than half who sent in the "right" figure subsequently revised their calculations (including reader Mel Beckman's letter to the editor on page 48).

With the gracious help of David Newman, a Network World Test Alliance partner, here are the corrected figures and how we arrived at them:

First, Newman advocates using as a baseline a 40-byte TCP/IP acknowledgment (ACK) packet, rather than a 64-byte packet, given that TCP ACKs are among the most common packets on the 'Net. ACKs have a TCP header but no payload, so the breakdown is as follows:

## A revised look at IPv6 still provides ample doubt

- Under IPv4, the total IP header without options runs to 20 bytes. The TCP header takes up an additional 20 bytes, for a total packet length of 40 bytes.

- Under IPv6, the total IP header without options is 40 bytes. The TCP header takes another 20 bytes (same as for v4), for a total packet length of 60 bytes.

The upshot? A 100% increase in IP header overhead (from 20 to 40 bytes), and a 50% increase in total packet length. As noted, that's not the 250% increase for a 64-byte packet I initially cited, but it's still plenty.

It's also reasonable to ask how many packets on the Internet are small enough for the overhead to matter. The answer, as indicated by the data, is "most of them." Various analyses demonstrate that between 20% and 25% of packets are 40 bytes, with roughly 50% of all packets at 220 bytes or less. (See [www.networkworld.com](http://www.networkworld.com), DocFinder: 8925, and check out data obtained by the Cooperative Association for Internet Data Analysis at [www.caida.org](http://www.caida.org).) Therefore, the overhead increase generated by IPv6 on small packets is neither negligible nor a red herring.

In addition, the exact timing of IP address exhaustion has proven fluid. The best current projections range between 2013 and 2030 (for a good baseline analysis, check out DocFinder: 8926). But the projected exhaustion point tends to keep receding into the future (early projections were that addresses would run out in the late 1990s), largely because of the widespread deployment of network address translation (NAT).

And NAT's not going anywhere. While packet purists despise NAT, because it breaks the end-to-end-ness of the Internet, most companies deploy NAT by choice — preferring not to provide internal addressing information to the public Internet. That's not likely to change with the deployment of IPv6 — Cisco has implemented IPv6 NAT functionality in its routers. Don't look for NAT to die any time soon.

The bottom line stays the same: Companies shouldn't race to embrace IPv6.

*Johnson is president and chief research officer at Nemertes Research, an independent technology research firm. She can be reached at [johna@nemertes.com](mailto:johna@nemertes.com).*

### Short Takes

■ Network management vendor **Nexagent** last week said it has joined the TeleManagement Forum, an international industry organization providing guidance for management and operation of information and communications services. Nexagent said it can contribute insight into the challenges of managing multi-carrier environments. The 5-year-old company develops products specifically for this task, particularly in the area of MPLS multi-carrier interconnects. The TeleManagement Forum has more than 450 members and runs the OSS/BSS Conference and Exposition.





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# TECHNOLOGY UPDATE

■ AN INSIDE LOOK AT TECHNOLOGIES AND STANDARDS

## Security technology targets the LAN

BY JOSEPH TARDO

Access-control lists, originally designed for routers to deny or admit packets entering a network from a WAN, have drawbacks in controlling a diverse group of users accessing LANs. ACLs have no knowledge of traffic-flow semantics or content, can't adjust access rights for individual users, and suffer scalability and performance limitations.

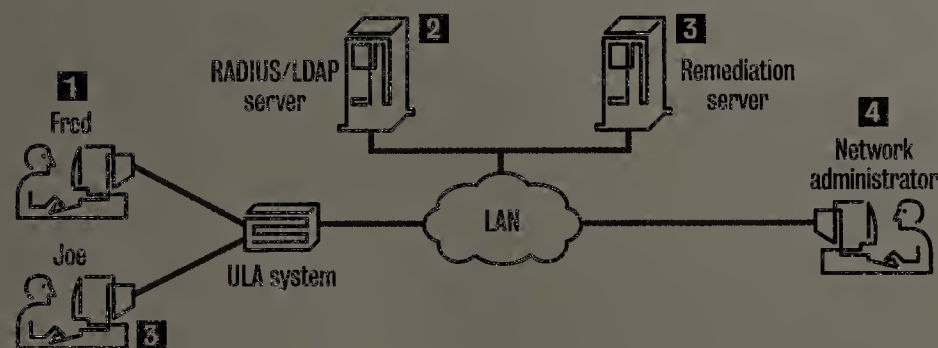
User-based LAN access control (ULA) is a new technology that redefines network admission and access. Made possible by a new breed of high-performance ASICs, emerging ULA-capable LAN security systems sit in a network at the user-access layer or at an aggregation layer, and inspect every packet on every port for security policy compliance and malware.

The technology lets an administrator identify who is using a network, where and how he logged on, what resources he can access, and whether the LAN is still secure and malware-free once the user is admitted. It also provides automatic quarantine mechanisms to isolate problem users immediately, and to dynamically change from normal to quarantine policy when malware is detected. In effect, it works to create a personal DMZ for every user on every port.

User-based LAN access control operates transparently to end users, while providing powerful security safeguards for network or security administrators. ULA-capable systems are flexible enough to offer several mechanisms for authentication, and smart enough to understand the concepts of user identity and security

### HOW IT WORKS: User-based LAN access

This technology, otherwise known as endpoint control, inspects traffic for security policy compliance and malware.



- 1 Fred authenticates at the ULA appliance, and existing RADIUS or Lightweight Directory Access Protocol (LDAP) servers determine group membership.
- 2 System matches groups with policies, applies policies to ports and allows access to appropriate network resources.
- 3 As Joe's worm-infected PC connects, the ULA system identifies malware and applies quarantine policies. Joe is allowed to access only the remediation server.
- 4 ULA system notifies network administrator and initiates worm remediation and operating system patch download to Joe's PC. The system verifies that Joe's PC is in compliance with security policies.

policies associated with each user. For example, when a user plugs his laptop in to a network, he authenticates via 802.1X, or a captive portal Web logon page, and the system immediately applies that user's security policies to all applications and network services he accesses.

This security technology also integrates with existing authentication databases to identify user-group memberships. A system matches group memberships from an existing RADIUS or Lightweight Di-

rectory Access Protocol database to security policies that will be applied on a LAN access port. This group-based approach guarantees scalability across a corporation, because policies are defined one time and all group members automatically inherit the policies at logon. When a user is transient (say, a contractor working on the latest SAP upgrade), policies travel with him wherever he connects to the network.

When malware, such as worms, or other

inappropriate behavior is identified, the ULA system automatically applies quarantine policies to that user only. Before the availability of user-based LAN access control in LANs, the only way to protect against malware was to assign users to a quarantined virtual LAN. This is akin to throwing influenza sufferers in with malaria patients. With user-based LAN access control, a device completely isolates infected users with fully stateful firewall policies, while allowing access, for example, only to remediation servers.

Simultaneously, the device alerts the network administrator about the incident. Event details include who is responsible, what they did, where they are located and what's been done about it. Compare this with today's practice of combing through router and switch logs, or Address Resolution Protocol tables, looking for which media access control address caused the problem and to which port they are connected.

Finally, ULA systems offer robust security audit benefits. When a network understands user identity and what resources people have access to, and it has the capacity to log this network activity, compliance audits become much simpler.

User-based LAN access control enables companies to implement simple, identity-based security policy provisioning, rapid security incident resolution and complete compliance audit trails.

*Tardo is principal security architect for Nevis Networks. He can be reached at joseph.tardo@nevisnetworks.com.*

### Ask Dr. Internet

By Steve Blass

**We want to use the Eclipse Rich Client Platform for a desktop application. What options are available for user interface development? The Sun Netbeans environment provides a GUI builder that seems to be missing in Eclipse. How does one develop an Eclipse user interface without entering widget code by hand?**

At least three tool sets are available for developing Eclipse desktop user interfaces at a higher level than

hand writing Simple Widget Toolkit (SWT) code. The Eclipse Visual Editor Project provides a framework for developing GUI builders that support both SWT/RPC code and Swing/Java Foundation Classes code. The Visual Editor for Eclipse is available for download from [www.eclipse.org/vep/](http://www.eclipse.org/vep/).

Two other open source projects available on SourceForge, XSWT and EclipseXUL, provide for the development and construction of Eclipse user interfaces through the use of particularly formatted XML files. XSWT describes SWT layouts in a way that pro-

vides a one-to-one mapping between XSWT elements and SWT Java code.

The XSWT plug-in is available for download from <http://xswt.sourceforge.net>. EclipseXUL, an Eclipse feature under development adds XML User Interface Language support to Eclipse and is based on the Eclipse Web Tools Project (see [www.networkworld.com](http://www.networkworld.com), DocFinder: 8929).

*Blass, a network architect at Change@Work in Houston, can be reached at [drinternet@changeatwork.com](mailto:drinternet@changeatwork.com).*





## GEARHEAD INSIDE THE NETWORK MACHINE

Mark Gibbs

# Portable drives for massive files

It has been an exciting weekend, as our son had his first club football game, a convincing win for his team (30 to 8) against opponents who punched, pinched and played dirty. We took a lot of photographs ... more than 400, to be precise.

Now, how to get the good ones over to the team mom? The problem is she uses Adelpia cable, which has a 10M-byte message size limit, and we have about 1G byte of photos to send. This is a good chance to try out

some new portable storage devices we've been meaning to take a look at.

First, we have the ENC-302U PC Drive Kit from Azio. This kit allows you to build an external 3.5-inch drive with a USB 2.0 interface that will automatically be recognized by Windows XP, Win 2000 and Mac OS X. Azio provides drivers for Win 98 and Win SE.

The kit consists of an attractively designed, stackable enclosure (8.25 by 5 by 1.5 inches) containing electronics, connectors and a power supply into which you install your own UDMA 33/66- or ATA-100/133-compliant drive. One hopes a future version will support Serial ATA drives.

If you can use a screwdriver, you can install a drive into the PC Drive Kit. The accompanying instructions aren't too clever, but if you have a clue about what you're doing, they

will be enough.

But we have two complaints: First, the data cables are a little too crowded between the drive and the electronics, which makes locating the drive a "grind to fit" exercise. Second, because the cables are squashed, you will be inclined, quite sensibly, to relieve them by placing the drive as far away from the electronics as possible. You will then secure the drive with screws.

## We took a lot of photographs ... more than 400, to be precise.

Unfortunately, at this location, the drive will interfere with the top of the enclosure, so you will have to undo the screws and push the drive back toward the electronics, thereby squashing the cables to get enough clearance. A simple plastic lug to limit the position of the drive and a better cable path would have solved this.

Is the Azio ENC-302U Kit worth it? Well, if you were to buy a complete external 80G-byte drive with a USB 2.0 interface, you would expect to spend about \$100. Using the Azio PC Drive Kit, which costs \$44, and buying an 80G-byte drive works out to roughly the same price — but if you happen to have an old drive lying around, then the kit becomes a really good value. We used an old 80G-byte Maxtor drive and it worked fine.

Our second storage device is the Dragon Drive 2.5 from

US Modular ([www.networkworld.com](http://www.networkworld.com), DocFinder: 3928). The Dragon Drive comes complete with a drive installed (available capacities are 20G, 40G, 60G, 80G and 100G bytes) and ready to rumble.

The Dragon Drives use 2.5-inch drives, so the enclosures are smaller (6.35 by 3.57 by 0.67 inches) than the Azio enclosures, provide USB 2.0 and Firewire interfaces, and can be powered by an included 5-volt adapter (aka a wall wart) or by the port they connect to. The drives also come with a neat carrying wallet that stores the bundled adapter cable and the disk with Win 98 and Win SE drivers.

The USB 2.0 interface is specified as running at 480M bit/sec, and Firewire is rated at 400M bit/sec, so you might think that external drives with USB 2.0 interfaces would be the better choice. Real-world testing shows Firewire is 16% to 48% faster on writes and 33% to 70% faster on reads. It will come as no surprise that the Dragon Drive is a faster storage solution than the USB 2.0 Azio drive.

Best of all, the higher speed and smaller form factor come without higher cost: The 80G-byte Dragon Drive is available for about \$100.

We like this product a lot, so we'll be off to load up the team mom's machine with the Dragon Drive.

*Send your team shots to [gearhead@gibbs.com](mailto:gearhead@gibbs.com). As always, check Gearblog ([www.networkworld.com/weblogs/gearblog](http://www.networkworld.com/weblogs/gearblog)).*



## CoolTools

Quick takes on high-tech toys. Keith Shaw

**The scoop:** MacGyver MP3 Watch, from Skullcandy, from \$170 (256M bytes) to \$300 (1G byte)

**What it is:** A watch that includes a flash memory drive with either 256M, 512M or 1G bytes of storage to let users store MP3 or Windows Media Audio (WMA) files. The watch comes in white (which we tried) or black and the device's USB cable is embedded within the watch's strap. When connected to a USB port on a PC, the device can act as a storage drive for other files, not just MP3 or WMA (security alert!). In addition to an MP3 player, the watch includes a five-mode audio equalizer, 3-D stereo sound and music shuffle feature. The watch includes a voice recorder, so users can walk into their boss' office and record conversations at the push of a button.

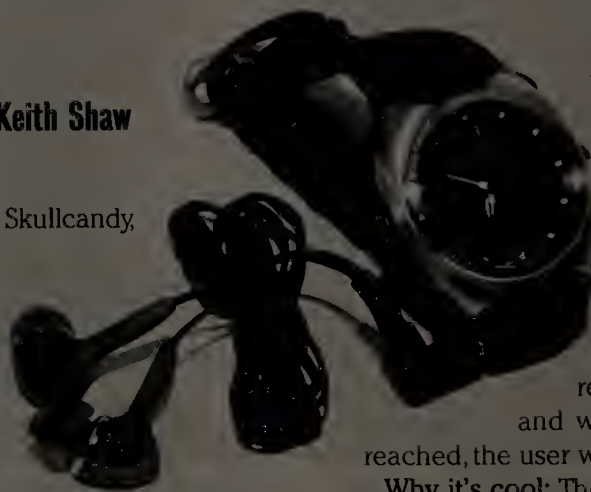
**Why it's cool:** With a name like the MacGyver MP3 Watch, one thinks of the TV show, and it does have a spylike feel. Being able to listen to music files on a wristwatch might also appeal to runners, who won't have to worry about carrying an MP3 player on an armband or carry it while they run.

**Some caveats:** Listening to music is less flexible than with some other audio players — while the watch includes a shuffle function, finding a specific song is determined by just pushing the next-song button instead of any kind of search interface. We also inadvertently skipped to the next song or hit the replay button several times just through the course of moving around — the buttons seemed very sensitive.

**Grade:** ★★★ (out of five).

**The scoop:** SleepTracker watch, by Innovative Sleep Solutions, about \$150

**What it is:** A wristwatch for mobile travelers, the SleepTracker looks like a sports watch or heart monitor, but includes technology that monitors your sleep pat-



Skullcandy's MacGyver watch includes an MP3 player and voice recorder.

terns. Innovative Sleep Solutions suggests that an alarm clock that wakes people at specific times can possibly prevent them from waking up fully refreshed. With the knowledge that people go through different phases of sleep, the SleepTracker watch aims to wake the wearer when he is in the best possible waking time (usually a non-deep sleep phase). A user sets a "wake window" of 10, 20 or 30 minutes before the time that they have to wake up. If the optimal wake-up time is not reached, the watch will still act as a regular alarm clock and wake up the person at the time he sets. If the phase is reached, the user wakes up earlier, but more refreshed.

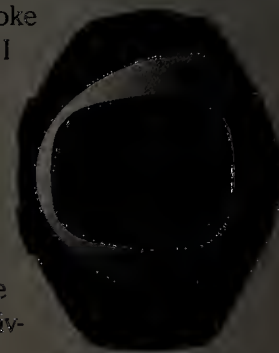
**Why it's cool:** The idea of a watch and alarm clock that wakes you up to feel more refreshed is appealing, especially to road warriors who switch time zones frequently and want to make sure they are ready to go for early morning meetings.

**Some caveats:** Unfortunately, during several nights of trying the watch, I became more stressed out and exhausted than with a regular alarm clock or hotel wake-up call. During the first night, I woke up much earlier than even the alarm window was set for, so I never got a sense of when it would wake me up. During successive nights, I thought so much about the watch and when it would wake me up, I had odd dreams and frequently awoke during the night. In these cases, the watch never woke me up during the optimal time, it just waited until the alarm clock set time, when I was awake anyway.

It's possible that this watch will benefit travelers who have odder sleep patterns than I do, but for me it never quite delivered on the promise of making me feel more refreshed.

**Grade:** ★

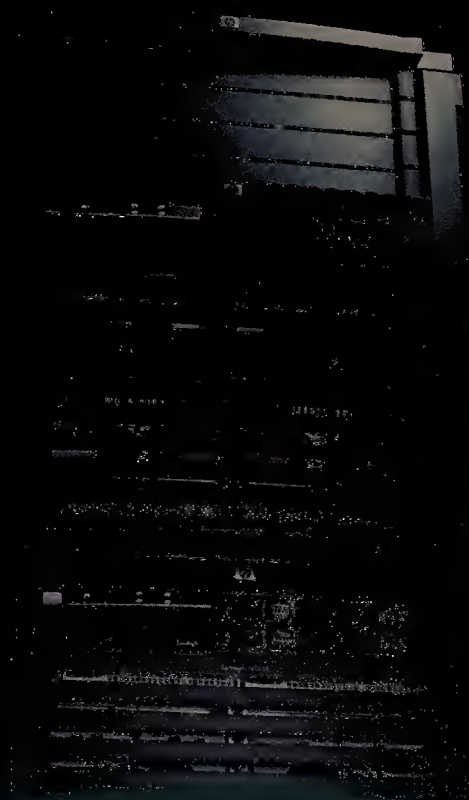
*Shaw can be reached at [kshaw@nw.com](mailto:kshaw@nw.com).*



The SleepTracker watch stressed us out more than an alarm clock.

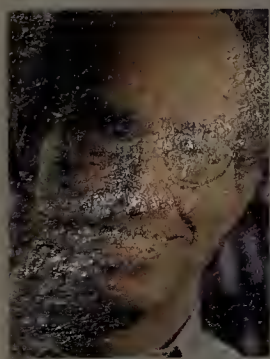


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Nimble, virtual capacity and built-in management tools make HP Integrity servers, powered by Intel® Itanium® 2 Processors, the perfect consolidation solution. Dynamic resources reallocate tasks with speed and ease, making a more efficient home for your most demanding applications.





On Technology  
John Dix

## IT metrics for the budget season

As summer ends and we enter the budget season, we thought it would be good to share some IT metrics culled from various sources over the years so you can see where you stand.

- IT spending as percent of revenue was a more significant metric when IT was more of a backroom operation, but it is still a core measure. The rule of thumb is 4% to 8%, but of course it also depends on your vertical market. In retail, for example, the goal is down close to 1%.
  - IT spending as percentage of corporate capital spending averages 50%.
  - By some accounts, 80% of IS dollars goes to operations today and only 20% goes to capital expenditures, whereas 20 years ago it was more like 50%/50%.
  - Average system utilization is 20%, a leading driver for grid and virtualization technologies.
  - Core network infrastructure can be expected to last about seven years.
  - Upfront system costs are the tip of the iceberg. Actual implementation can cost two to three times that, and in terms of managing the system over time, the initial cost may be as little as one-seventh to one-tenth of the total ownership costs.
  - By some estimates, 40% of the cost of deploying new applications is integrating them with legacy programs — one of the drivers for Web services.
  - Cost per hour of downtime varies greatly by industry, ranging from \$90,000 per hour in airline reservation and catalog sales environments to \$6.5 million per hour in financial services. Knowing how much downtime costs your company can help justify investments in everything from quality infrastructure to disaster recovery capabilities. Regarding the latter, Gartner estimates that two out of five corporations that experience a disaster go out of business within five years.
  - Even with consolidation trends, data-center device growth is 30% to 35% per year, fed in part by the move to a smaller footprint and simpler machines such as blade servers.
  - The trick is adding new data center gear while scaling down complexity. Because of that complexity, eight out of 10 failures result from human error.
  - Ten years ago the help desk supported an average of 25 applications, while today it supports 200. With help desk calls costing \$50 to \$60 each, companies are striving to reduce application count and moving toward self-service.
  - By some estimates, each user generates 800M bytes to 1G byte of data per year, and data growth companywide averages 25% to 35% per year.
- Of course, these are all estimates, and your mileage will vary. Let us know what metrics you track.

— John Dix  
Editor in chief  
jdix@nww.com

# Opinions

## IPv6: Right on time

Johna Till Johnson's column, "IPv6: Time's still not right" (www.networkworld.com, DocFinder: 8922) is full of misinformation. First she claims that IPv6 requires 250% more bandwidth than IPv4 for 64-byte messages. But if you do the math, you'll see that an IPv6 packet's 20 additional bytes amounts to only a 24% larger packet with a 64-byte payload (104 vs. 84 bytes). She admits that little traffic on the Internet consists of such small packets, so this argument is a red herring. When you look at the actual packet size distribution on the Internet, IPv6's overhead is negligible.

Then Johnson claims that IPv6's only other advantage is a larger address space, and even dismisses that, claiming that we don't need more addresses because network address translation (NAT) solved that problem. But NAT is nothing more than an ugly hack, and an expensive one at that. I can't count the number of hours I've wasted debugging problems eventually traced to NAT compatibility issues. IPv6 completely eliminates NAT. And dynamic IP address assignment. And packet fragmentation. And network renumbering. The value of IPv6 is not its directly addressable endpoints, it's that NAT isn't munging IPv6 packets from one endpoint to the other.

The death of NAT also vastly simplifies router and firewall configuration. NAT misconfiguration is a leading cause of configuration errors and inadvertent security holes in these devices. Johnson believes IPv6 security is no better than IPv4's. But IPv6 provides end-to-end encryption and address authentication, where IPv4 is at best end-to-gateway encryption with no authentication. And IPv6's hierarchical address allocation scheme makes it impossible to spoof IP addresses, eliminating a host of denial-of-service attacks.

Johnson's claim of IPv6 routing troubles is

overblown, as well. IPv6 was designed to route just fine on the current network infrastructure, bringing advantages like QoS and Internet-wide multicast to the table at no extra charge.

Mel Beckman  
Ventura, Calif.

## Winrot and what-not

Regarding Mark Gibbs' Gearhead column, "Days of Winrot and OS what-not" (DocFinder: 8923): Thanks for bringing attention to Winrot. In the good old days of Win98, I used to back up my data files, then boot up from a floppy. I'd simply do a deltree command on the Windows & Program Files directories, throw in the Win98 CD, install Windows, install apps and restore data. Since the rest of the disk was left intact, and I was in the habit then of not installing most of my apps in the Program Files directory, when I reinstalled my apps to the existing folders, most of my settings would remain, and after tweaking Windows back to my liking, I was off and running.

Today, I don't seem to need to reinstall XP as often as I did with Win98 or even Win2K. However, when I do, it kills a day. I have to back up my data, wipe the drive clean, then reinstall everything. The other problem with data backup today is that it's not as simple as it used to be. And what about all the users who have no idea how to do this and just live with the Winrot? It's no wonder they just trash the whole computer and buy a new one when it becomes unbearable.

Ron Stockwell  
Sales representative  
Data Futures  
Overland Park, Kan.

E-mail letters to [jdix@nww.com](mailto:jdix@nww.com) or send them to John Dix, editor in chief, Network World, 118 Turnpike Road, Southborough, MA 01772. Please include phone number and address for verification.

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## Readers respond

Find out what readers are saying about these and other topics. DocFinder: 1030







**VORTEX 2005**  
Geoffrey Moore

# Dealing with Darwin: Shape of our systems

**M**aintaining competitive differentiation is the key to creating attractive investor returns. But in a global economy, when you're spotting an offshore competitor a huge wage advantage, how do you maintain high margins? There are a variety of ways to co-opt the global economy and make it work for you. The key is to have increasingly precise long-distance information and communication systems. What shape are your systems in today?

Most corporations deploy their IT systems atop an Internet-enabled client-server enterprise architecture anchored by a relatively monolithic ERP system, around which are clustered applications for customer relationship, produce life-cycle and supply chain partner management. Add in your homegrown applications and bolt the whole thing to a legacy mainframe system, and your flexibility quotient declines to zero.

More than anything, you need flexibility to compete in the global economy. We're all making this global stuff up as we go along, so we have to be able to experiment, attach, detach and reattach along the way. This implies a kind of modularity not present in most corporate IT systems today.

The vision for this modularity is in place, however. It has many names, and service-oriented architecture might be the most common. Virtually all of your vendors have spent the past five years reshaping their products to this new standard, but you have not. Until you do, you are going to be living in maintenance hell, paying a huge complexity tax every day in terms of the payroll you devote to keeping your client-server

**Until you reshape your products, you will be living in maintenance hell.**

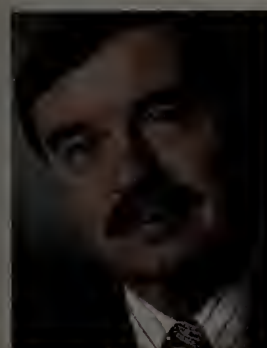
legacy patched together, and shuddering every time some manager suggests adding a new application for competitive advantage.

It is time to bite this bullet. Every major systems vendor has a plan. SAP, Cisco, IBM, EMC, Microsoft, HP, Sun — all are promoting a platform vision in which they can help you transition to the new architecture. The problem is, there is no short-term ROI for implementing any of them, so you don't know how to justify the cost of the effort to your colleagues. But there is certainly a

negative ROI for not adapting. We call it "dealing with Darwin." When the forces of natural selection are knocking at the door, "We'll get back to you" doesn't cut it. Failure to act now commits your company to an increasingly marginalized future.

At Vortex 2005, to be held Oct. 24-26 in San Francisco, we'll discuss a framework for navigating these treacherous waters. It is called core/context analysis, and it prioritizes commitments based on two dimensions — contribution to strategic differentiation and management of mission-critical risk. The problem with our legacy architectures is that they no longer support differentiation, although they do contain mission-critical risk. The new architectures, on the other hand, support strategic differentiation, but are unproven in mission-critical deployments and any transition to them also must cope with the risk of migration. How do you do that? That's the question that 300 CIOs and vendor executives plan to tackle at Vortex. To register, go to [www.networkworld.com](http://www.networkworld.com), DocFinder: 8921.

*Moore, a consultant and author, is co-executive producer of Vortex 2005. He can be reached at [gmoore@tcg-advisors.com](mailto:gmoore@tcg-advisors.com).*



**REALITY CHECK**  
Thomas Nolle

## Can networking make a financial comeback?

**I**t's hard to remember the heady days of the 1990s, when network stocks were flying high, IPOs showed enormous gains in their very first hours and the financial future of networking seemed rosy. Networking is sure not looking like a high-flyer anymore. Will it come back?

Technology in general has been recovering from near-historical lows. During the worst of the post-bubble collapse (2003), IT spending as a percentage of the gross domestic product hit the lowest point since the post-World War II period. In the history of the Information Age, there has never been a period when spending stayed this low for more than a couple of years. That alone would seem to give hope for increased IT spending and maybe a couple of extra bucks for network equipment.

Then there's the whole service-oriented architecture (SOA) thing. *BusinessWeek* has heralded SOA as the most significant software trend in a decade. The idea of SOA is to create flexible application relationships that let users build applications similar to the way that Web pages are built today. This means assembling pieces hosted on servers that might be in the data center, a partner's server farm or even a service provider's grid computing center. It's hard to see how all this assembling could be done without generating network traffic, but you don't hear much about the impact of SOA on networks.

One problem is that SOA might actually be undermining networking's mind share with senior management. SOA is an application rev-

olution, not a network revolution. It's true that SOA might change the way that we do networking, and it will certainly change the demands placed on networks, but right now the focus of management is on the application and software. Companies that provide applications, such as IBM or SAP, are getting appointments with enterprise CIOs; network vendors are having a harder time. Cisco's John Chambers talked about the need for a higher level of engagement last December; the question is whether anything can be done about it.

A second problem is commoditization of network equipment. There are just so many fea-

**Networking's answer for better performance is to be more involved in SOA.**

tures that can be added to a LAN switch or router before a buyer simply doesn't see the point anymore. LAN switching suffered a price collapse in the early 1990s because of this feature overload. Players such as the 3Com-Huawei joint venture, capable of operating at lower profit margins per sale, can hurt the profits of the major vendors when buyers increasingly want high speed and low cost. It doesn't help that everyone's chasing the small and midsize business market, either. This market isn't as likely to value features, is too small for direct sales and is significantly more price-sensitive.

It seems likely that the carrier segment will have to provide the strength in the network

market at least for the next couple of years. Consumer broadband and wireless growth are promising to drive up spending, and the steady upward trends in carrier capital expenditures have surprised Wall Street. It seems likely that content networking, such as IPTV, will be a major driver of spending, but will that spending be focused more on content servers and software than equipment? Is IT going to threaten network equipment everywhere?

It seems clear that the only answer to networking's prayers for better performance is to become more involved in SOA and content trends. That doesn't mean providing fat pipes at lower unit cost; it means finding network features that are specifically linked to SOA and content. Some vendors have made strides in this direction. Alcatel has IPTV-specific features in its DSL products, and Cisco has announced Application Oriented Networking, which in Europe is being billed as a way to make networks aware of SOA. But neither approach seems to be getting much promotion by its vendor, or much publicity and recognition.

Could it be that we've lost our excitement? Is the problem with networking now as simple as that the promoters don't believe anymore? Is networking strategic or just plumbing? If we can't prove it's the former, it will surely become the latter.

*Nolle is president of CIMI Corp., a technology assessment firm in Voorhees, N.J. He can be reached at (856) 753-0004 or [tnolle@cimicorp.com](mailto:tnolle@cimicorp.com).*



# DEMOFALL

BY SANDRA GITTLEN

## preview

The scoop on the upcoming fall IT product lineup.

**JUST** as TV viewers are getting a taste of the networks' new fall lineups, so will IT execs and other industry watchers this week at DemoFall 2005, where 70 of the most-promising products and services will be unveiled.

It's no surprise that among the top bets are start-ups pitching offerings that deal with security. From fending off malware to protecting corporate documents, DemoFall demonstrators are trying to help organizations protect their precious assets. Also on tap are companies debuting wares that ease the burden on IT groups.

Our favorites are listed over the next few pages — a complete list of the companies showing new technologies at the show is available at [www.demo.com](http://www.demo.com).

### THE SHIELD

**Product:** Vulnerability Protection Suite

**Company:** Determina, [www.determina.com](http://www.determina.com)

**Premieres:** Available now, about \$750 per server.

**Details:** "Every CXO is forced into a trade-off between two very important things: business disruption and boosting security," says Nand Mulchandani, vice president of marketing and business development at Determina.

Viruses such as the recent Zotob worm force IT groups to take down infrastructure for patches and other updates, Mulchandani says. "You have to react to every security threat that's coming out. If you're responsible for thousands of PCs, you're in a world of hurt," he says. The time it takes to test and circulate patches only worsens the situation.

The Vulnerability Protection Suite includes the Determina Memory Firewall and LiveShield. The software lets IT managers rapidly create a shield around vulnerable code. For example, if Microsoft announces a problem with Internet Explorer, IT groups can introduce a barrier to the affected code into the server while it is still running and without rebooting.

System	MS05-039A	MS05-039	Buffer Overflow in the Plug and Play Service	Monitor: Shield
System Detail				Standard: Shield
Agent Install Packages	MS03-0396	MS03-039	Denial of Service in MSRPC DCOM	Monitor: Shield
LiveShield Updates				Standard: Shield
LiveShield Signatures	MS04-011C	MS04-011	Denial of Service in SBL	Monitor: Shield
				Standard: Shield
	MS04-011B	MS04-011	Denial of Service in the Negotiate SSP Interface	Monitor: Shield
				Standard: Shield
	MS01-026A	MS01-026	ITS Double Decoding Directory Traversal	Monitor: Shield
				Standard: Shield
	MS00-076A	MS00-076	ITS Invalid UNICODE Directory Traversal	Monitor: Shield
				Standard: Shield
	MS03-007A	MS03-007	Long Filename Buffer Overflow in NTDLL	Monitor: Shield
				Standard: Shield
	MS04-007A	MS04-007	Memory Corruption Vulnerability in MSASN1.DLL	Monitor: Shield
				Standard: Shield



### PATCH GAME '05

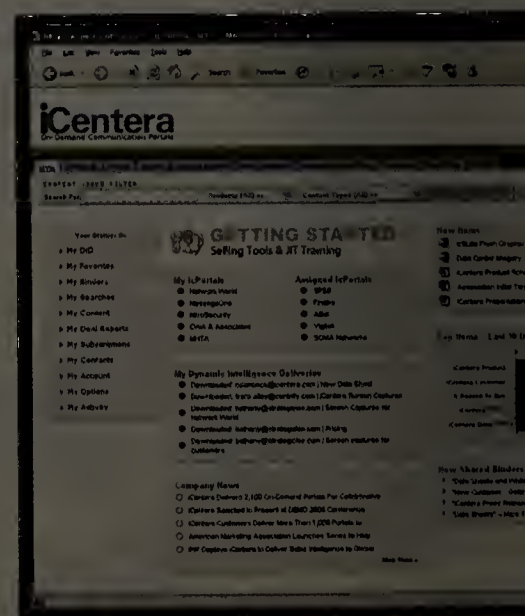
**Product:** Application Continuity Appliance

**Company:** Teneros, [www.teneros.com](http://www.teneros.com)

**Premieres:** Available now, \$15,000 for appliance and \$3,750 annual service fee.

**Details:** "Companies have invested in Microsoft infrastructure and they need to keep end users of those mission-critical applications up and running," says Steve Lewis, president and CEO of Teneros. He says IT groups at smaller companies don't have the resources to handle continuous patching.

Teneros' appliance hooks directly onto Microsoft Exchange servers and provides automated monitoring, patching and upgrades. The company says it will soon provide support for Microsoft's Great Plains business application, as well.





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## Is security ripe for outsourcing?

Die wichtigste Voraussetzung für ein erfolgreiches Projekt ist die Auswahl der richtigen Partner. Die Partner sollten über die notwendigen Ressourcen und Fähigkeiten verfügen, um das Projekt erfolgreich umzusetzen. Ein weiterer wichtiger Punkt ist die Kommunikation. Eine gute Kommunikation ist entscheidend für den Erfolg eines Projekts. Sie ermöglicht es, die Aufgaben und Verantwortlichkeiten der Partner zu klären und sicherzustellen, dass alle auf dem gleichen Stand sind. Ein weiterer wichtiger Punkt ist die Flexibilität. Ein Projekt kann oft unvorhergesehenen Herausforderungen ausgesetzt sein. Es ist wichtig, flexibel zu sein und in der Lage zu sein, Änderungen vorzunehmen, wenn dies erforderlich ist. Ein weiterer wichtiger Punkt ist die Dokumentation. Eine gute Dokumentation ist entscheidend für den Erfolg eines Projekts. Sie ermöglicht es, den Fortschritt des Projekts zu verfolgen und sicherzustellen, dass alle Aufgaben rechtzeitig erledigt werden. Ein weiterer wichtiger Punkt ist die Evaluation. Eine gute Evaluation ist entscheidend für den Erfolg eines Projekts. Sie ermöglicht es, die Ergebnisse des Projekts zu bewerten und sicherzustellen, dass die Ziele erreicht wurden. Ein weiterer wichtiger Punkt ist die Kommunikation. Eine gute Kommunikation ist entscheidend für den Erfolg eines Projekts. Sie ermöglicht es, die Aufgaben und Verantwortlichkeiten der Partner zu klären und sicherzustellen, dass alle auf dem gleichen Stand sind. Ein weiterer wichtiger Punkt ist die Flexibilität. Ein Projekt kann oft unvorhergesehenen Herausforderungen ausgesetzt sein. Es ist wichtig, flexibel zu sein und in der Lage zu sein, Änderungen vorzunehmen, wenn dies erforderlich ist. Ein weiterer wichtiger Punkt ist die Dokumentation. Eine gute Dokumentation ist entscheidend für den Erfolg eines Projekts. Sie ermöglicht es, den Fortschritt des Projekts zu verfolgen und sicherzustellen, dass alle Aufgaben rechtzeitig erledigt werden. Ein weiterer wichtiger Punkt ist die Evaluation. Eine gute Evaluation ist entscheidend für den Erfolg eines Projekts. Sie ermöglicht es, die Ergebnisse des Projekts zu bewerten und sicherzustellen, dass die Ziele erreicht wurden.

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## Keeping track of NASCAR

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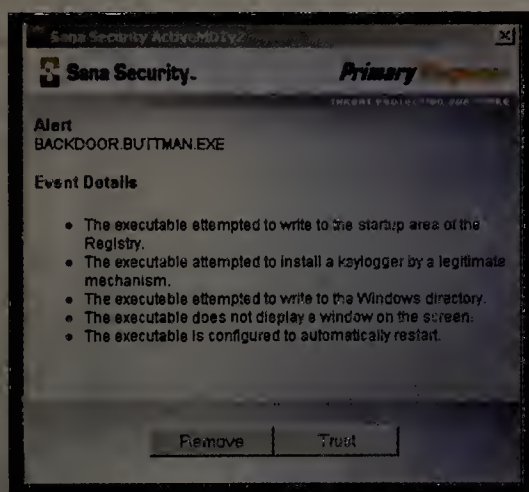
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## I (ANTI-)SPY

**Product:** Active Malware Defense Technology, Version 2.0

**Company:** Sana Security, [www.sanasecurity.com](http://www.sanasecurity.com)

**Premieres:** Early 2006

**Details:** Sana Security thinks a lot about business continuity. Matthew Williamson, senior research scientist at the start-up, says today's security tools jeopardize business continuity because they rely on known signatures to stop worms. If a signature is not recognized, then IT groups must wait for a signature to be created and this can cause network disruptions.

"Worms are designed stealthily, and it can take a long time to get a signature," Williamson says. He says once signatures are detected, scanning can take a large chunk of time and that affects the productivity of end users.

Active Malware Defense Technology Version 2.0 uses generic detection to uncover malicious code, Trojans, backdoors and spyware. The software looks at the behavior of running programs, including key logger installs and whether code is being hidden from the user. If something malicious is detected, the software removes it without human involvement.

## WIZARDS AND WEB SITES

**Product:** Portals for Mortals

**Company:** iCentera

**Premieres:** Now available, \$30 to \$90 per user, with hosting from Level 3.

**Details:** "IT would rather be involved in rolling out a new server, not forcing a new file to the server," says Craig Nelson, CEO of iCentera. The company developed Portals for Mortals, a software suite that lets business units develop dynamic Web sites without the involvement of IT. Nelson says marketing teams can use the service to customize sites around marketing campaigns, interact with customers and create a community for employees. The wizard-driven tool supports document loading, images and interactive content.

## CLEAN SWEEP

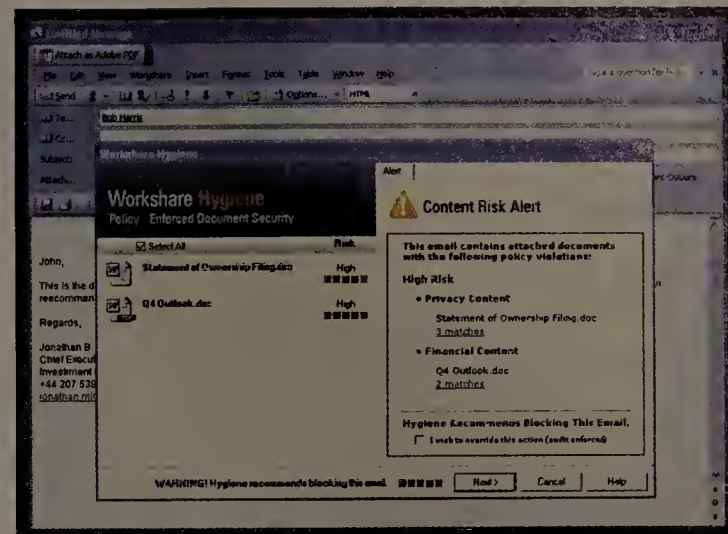
**Product:** Hygiene

**Company:** Workshare, [www.workshare.com](http://www.workshare.com)

**Premieres:** Available in beta later this year. No pricing yet.

**Details:** Document transfers are beginning to concern IT groups as a security risk. "Every day over a hundred million documents are sent over e-mail, but these documents are 'dirty' with hidden and visible risks, including private information about customers and consumers," says Ken Rutsky, executive vice president at Workshare. "Companies have to find a way to keep this information from leaking without disrupting the flow of business."

Workshare will roll out its Hygiene application (client and server software), which uses policies to spot infractions in hidden and visible text. For instance, metadata or information held in "track changes" that compromise corporate security can be filtered or fixed based on internal policy. The tool also features identity-based routing and auditing so organizations can ensure that their compliance mandates are being followed. Compliance officers can utilize a dashboard to see the top alert triggers among senders and documents.



## FAST LANE

**Product:** ATG Service Suite

**Company:** Art Technology Group, [www.atg.com](http://www.atg.com)

**Premieres:** Now available, pricing not yet released.

**Details:** Trying to serve customers from various silos is difficult for companies. IT groups struggle to link the multiple repositories so that customer service representatives have instant access to information.

The Art Technology Group (ATG) is unveiling its Service Suite to streamline the retrieval of customer information. The software (server software and Web agent client) features the company's Wisdom technology, which allows for real-time personalization, contextualized delivery of content and rapid resolution of questions for customers. For instance, if a valued customer is surfing a Web site, he might get a quicker response time to his question than a first-time visitor. He also might get different offers for additional products and services than other customers.

Erik Hille, director of product marketing at ATG, says the key is capturing the context of the customer interactions with either the Web site or call center. Improving response time lowers traditionally high service costs and increases cross-channel activity between product lines. Having detailed information about customers and their product choices readily available also reduce training time for new customer representatives, he says.



## I'M TELLING

**Product:** Barracuda IM Firewall

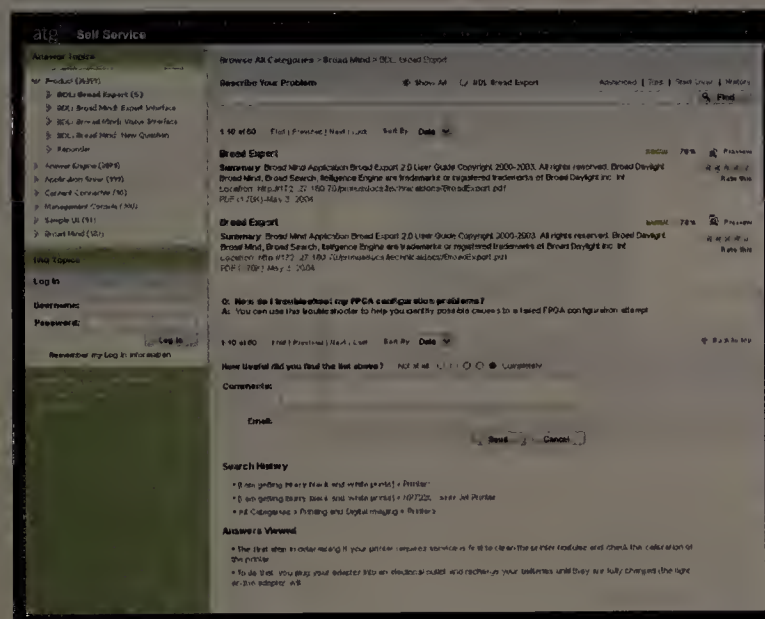
**Company:** Barracuda Networks, [www.barracuda.com](http://www.barracuda.com)

**Premieres:** Available in beta soon.

**Details:** Barracuda Networks uses policies to gain a grasp on corporate instant messaging. The Barracuda IM Firewall lets IT groups encrypt, filter and log instant messages from public clients such as Yahoo, AOL and MSN.

The software also lets companies set policies regarding identity management, keyword notification and compliance breaches. For instance, the firewall can detect when a user chooses a screen name that is inappropriate or sends out confidential information.

Barracuda IM Firewall, which works with other anti-virus, anti-spam and spyware programs, lets companies make alliances with their clients and partners for the safe use of IM.





# COOL STUFF FOR END USERS

BY KEITH SHAW

**MANY** products being introduced at DemoFall are designed for IT execs to roll out across the company, but there are also several cool, new products that IT pros will want to buy for themselves.

## SPECIAL DELIVERY

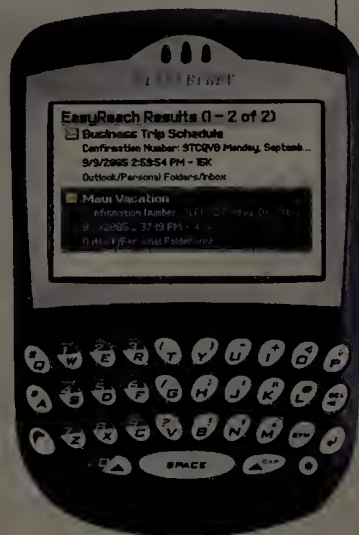
**Product:** EasyReach Remote Access

**Company:** EasyReach, [www.easyreach.com](http://www.easyreach.com)

**Premieres:** Coming soon, for about \$80 per year for one user/PC, or \$100 per year for two.

**Details:** BlackBerry and other handheld mobile devices are great for getting e-mail pushed from a corporate network down to the user, but pulling data from other sources (on a network file sources, or an end user's PC) can be more difficult.

EasyReach plans to launch a service that turns the handheld device into a mini PC, by letting users conduct keyword searches to securely retrieve files or e-mails from a desktop PC or file server, and then deliver them back to the handheld device. After a user types in the keyword, the service finds the file, and then sends the search results back via an e-mail. Users can then request one or more files to be sent back to the device.



## NEW(S) RADIO

**Product:** SoundBridge Wi-Fi Music System

**Company:** Roku, [www.rokulabs.com](http://www.rokulabs.com)

**Premieres:** Available worldwide at end of October, \$399.

**Details:** Roku's SoundBridge products have always defined cool in design and function, and this one is no different. The Wi-Fi Music System takes the world of digital networked music to the next step by combining a networked audio player (ability to listen to MP3s across a home network), Internet radio player and AM/FM clock radio (with alarm!) with built-in quality speakers into one sleek device. With this device, you'll be able to wake up to any radio station from around the world.

The all-in-one music system can automatically connect to a wireless home network (the device has an



802.11b radio but will connect to 802.11g networks) and play music stored on networked PCs in other parts of the house. In addition, the network connection lets users listen to Internet radio stations from around the world.

There's no Ethernet port or USB port, but users on the home network will be able to configure the device through a Web browser to add additional Internet radio stations or connect to a secure wireless network.

## THE OFFICE

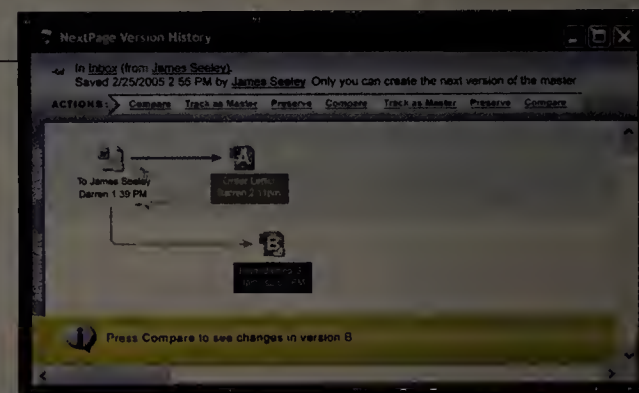
**Product:** NextPage v.2

**Company:** NextPage, [www.nextpage.com](http://www.nextpage.com)

**Premieres:** Available now, \$99 per user, per year.

**Details:** Tracking the location and status of Office-based documents is like herding cats — until now. NextPage v.2 is software and a service that tracks the location and status of every user's Word, Excel or PowerPoint file. Whenever a document is

opened, revised, changed or e-mailed, the information is tracked by NextPage and then compiled in a dashboard view for the end user. Having the 50,000-foot view of the status of all of a user's Office documents can save loads of time. Users can make sure that they are working on the latest version, or track the changes of a document that gets sent to multiple parties. Preventing a user from wasting time working on an old version of a document should be well worth the service fees.



## AMERICA'S FUNNIEST VIDEOS

**Product:** VideoEgg Publisher

**Company:** VideoEgg, [www.videoegg.com](http://www.videoegg.com)

**Premieres:** At the show.

**Details:** For a lot of video bloggers and others trying to do Webcasts or other video-on-the-net projects, the process of capturing, editing, encoding, uploading and streaming is extremely tedious. The VideoEgg Publisher aims to make this process much easier for end users.

The package is aimed to let existing Web sites add powerful video functionality with minimal effort and cost. A plug-in accepts video directly from camcorders, Webcams and even video camera phones in an easy, drag-and-drop fashion. Basic editing tools will be provided to let end users pick a start and stop time, as well as do some basic cuts in the middle of a video.



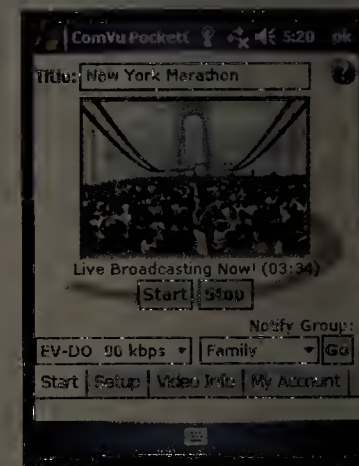
## WORLD NEWS TONIGHT (MOBILE EDITION)

**Product:** ComVu Mobile

**Company:** ComVu, [www.comvu.com](http://www.comvu.com)

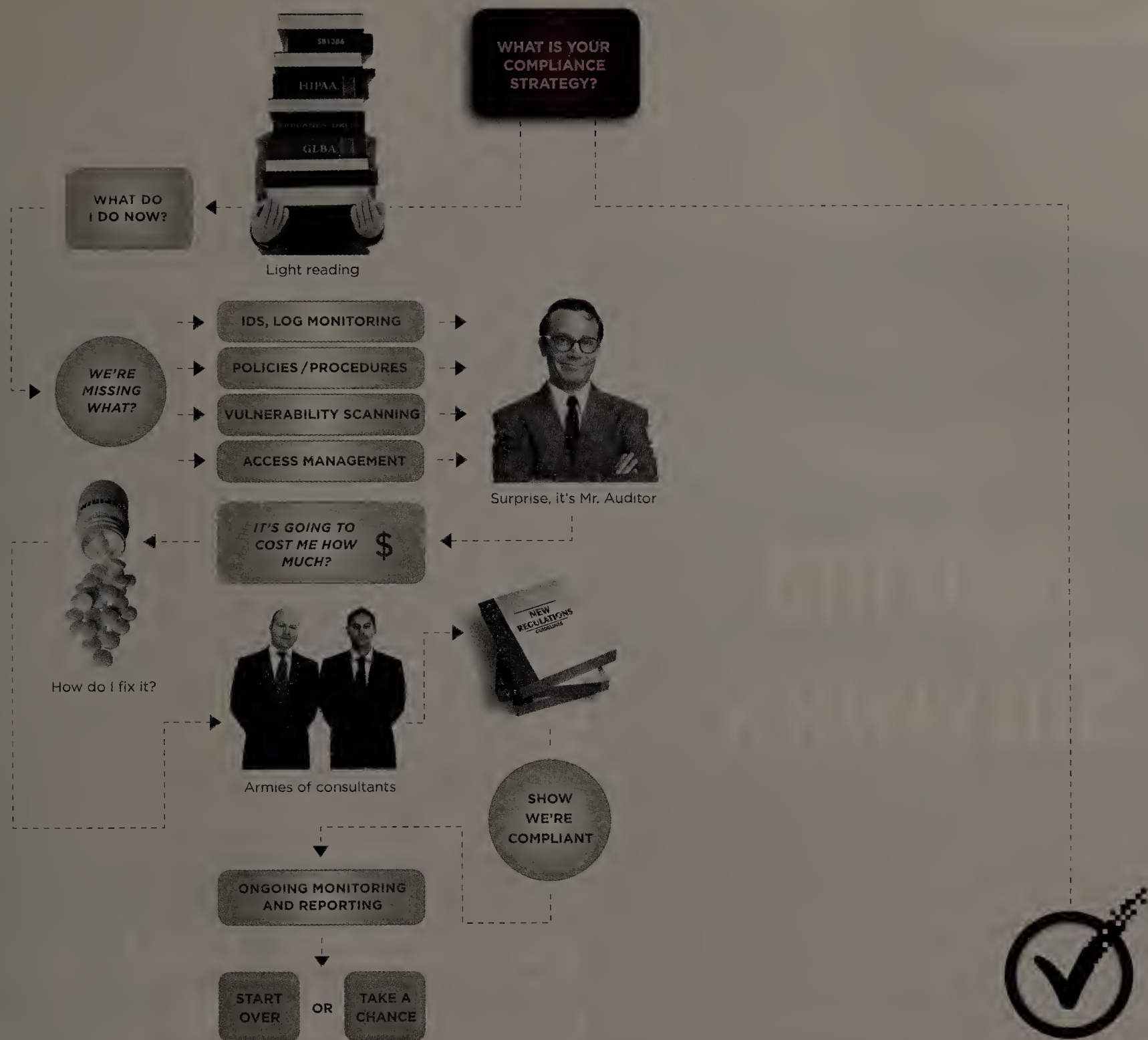
**Premieres:** Coming soon to a cell phone near you. Service about \$10 to \$100 per month.

**Details:** ComVu Mobile will let consumers create live videostreams that get automatically uploaded to a ComVu streaming media server. Other people can then watch the videostream live or on demand because ComVu will be able to archive any videos users create. The service initially will be targeted towards consumers as an easy way for them to record events and instantly upload videos to people who aren't there, so they can witness the experience. Imagine having your grandmother see a video of the new baby without having to send her a tape (or DVD) days or weeks later.



Shaw can be reached at [kshaw@nww.com](mailto:kshaw@nww.com).





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**Demo fall preview,**  
continued from page 51

## WEB IMPROVEMENT

**Product:** eXamine Enterprise

**Company:** Kenai Systems, [www.kenaisystems.com](http://www.kenaisystems.com)

**Premieres:** Now available for download.

**Details:** For some companies, the security concern is being shifted to the Web. As more applications are ported to Web services for a larger and more remote audience, IT groups are worried that the threat to back-end systems is greater.

Kenai's eXamine Enterprise software lets engineers, developers, security specialists and IT groups test their Web applications, including Web Service Definition

Language files, against vulnerabilities.

"Developers, security gurus and quality assurance folks are usually in their own silos. Developers will select their own Web service environment without regard to whether that's safe for the rest of the enterprise," says Jack Quinnell, CTO at the company.

eXamine Enterprise lets security teams develop baseline policies and then developers can validate Web services against those specific policies and general vulnerability profiles. Companies also can create logs and reports on their Web services for compliance and regulatory mandates.

## POLICY SQUAD

**Product:** mx2020 console

**Company:** IntelliReach, [www.intel-lireach.com](http://www.intel-lireach.com)

**Premieres:** Pricing and availability not yet released.

**Details:** "Messaging is in chaos," says Vicki Brown, vice president of marketing at IntelliReach. "IT managers have to do reporting, monitor for spam and viruses, and archive and storage for compliance."

IntelliReach aims to ease this burden by tying together all these functions via policy management. Using a central console, called the mx2020, IT managers can dictate how to handle virus-laden messages, what disclaimers are placed on selected users' outgoing e-mail and what messages should be encrypted.

Companies can ensure that profanity, corporate data and other critical factors are not putting them in jeopardy by leaving the network. Users also can manage their own messages, including full text searches, viewing quarantined e-mail and sorting archives. Human resources and legal departments can set and control policies throughout the organizations.

## GREEN ACRES

**Product:** Green Array Platform

**Company:** Green Array, [www.greenarray.com](http://www.greenarray.com)

**Premieres:** Available for Mac, Windows and Linux. Pricing not yet released.

**Details:** One of the hottest concepts in industry today is tracking corporate performance management. At many companies, IT has to create tools that help companies monitor the success of projects. Green Array is releasing a tool that lets executives and administrators companywide take ownership of this effort.

The Green Array Platform lets organizations track, via an easy-to-use "Outlook-like" dashboard, corporate performance, business unit performance and project performance.

Companies can gather teams, do surveys, readjust benchmark timelines and allot budget resources using the Green Array tool.

"The business side can lead the charge instead of IT needing to lead the way," says Miles Walsh, founder and CEO of the company.

## NETWORK CONFIDENTIAL

**Product:** Secure LAN Controller

**Company:** ConSentry Networks, [www.consentry.com](http://www.consentry.com)

**Premieres:** Currently in beta, pricing not yet available.

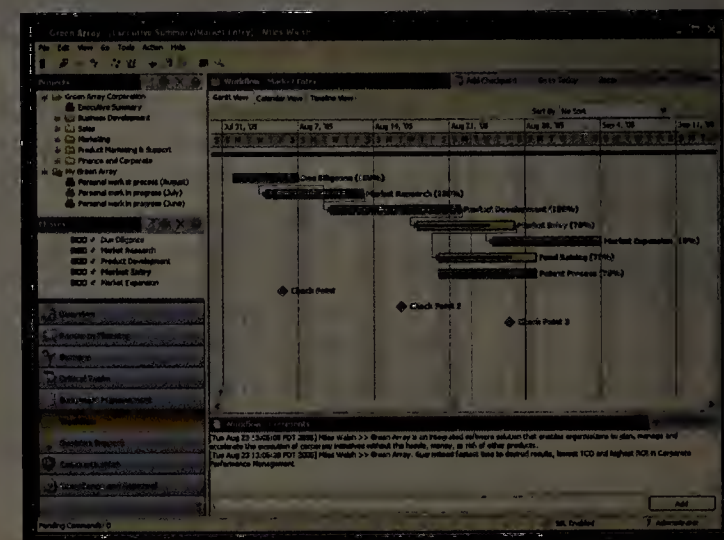
**Details:** While some companies focus on shoring up the desktop and applications, ConSentry Networks is aiming straight for the core infrastructure.

"Companies looking to secure their networks buy new switches, new firewalls, new servers. By the time they're done, they've spent hundreds of millions of dollars on a ton of products with a ton of complexity," says Faizel Lakhani, vice president of marketing at the start-up.

He says that all this technology bogs down networks and has an adverse affect on users. "The network does need to become user-aware and application-aware and needs to do deep inspection and track users, but it also has to be high-performance and easy to use," he says.

The Secure LAN Controller is a 10G Ethernet device that sits between access switches and core switches to provide user-based authentication. The Secure LAN Controller uses policies matched to a user's name and IP and media access control addresses to limit network and application access.

*Gittlen is a freelance technology editor. She can be reached at [sgittlen@charter.net](mailto:sgittlen@charter.net).*



# Text 2HELP Hurricane Katrina Survivors

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Your donation will appear on your monthly bill or be debited from prepaid account balances—it's that easy to help make a difference to the thousands of people affected by Hurricane Katrina.

Alltel, Boost Mobile, Cingular, Cricket Communications, Dobson, Sprint and Verizon Wireless are among the carriers supporting this effort.



American Red Cross

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The Text 2HELP Campaign was coordinated in part by

CTIA The Wireless Foundation





# Feeling Lost Implementing a Best Practice IT Service Management Program?

The IT Infrastructure Library (ITIL) is the single most prominent source for best-practice guidance for IT service management. Both vendors and IT managers are looking to ITIL, and its Configuration Management Database (CMDB), as the Holy Grail for increasing efficiency and aligning IT organization with the business. But what is the urgency and value of CMDB adoption? What vendor solutions provide the best technical direction, as well as a process ideal? What are the critical pitfalls of CMDB implementations?

Enterprise Management Associates provides the industry's most extensive research and analysis of the CMDB marketplace. EMA's recently released CMDB series of research reports present more than 25 vendor profiles and how their solutions stack-up architecturally – as well as how they map to ITIL best practices. The reports also provide IT perspectives with in-depth, issues-oriented analysis of what IT managers face in their CMDB implementations – with a practical eye to early-phase priorities and adoption issues.

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# SECTORS SPOTLIGHT EDUCATION

■ How emerging technologies are transforming key vertical industries.

## Managed Ethernet hits campus nets

Education's distributed, high-bandwidth requirements make it a natural for managed Ethernet services.

BY TERRY SWEENEY

**A**s wish lists go, this one didn't shoot the moon. The Cheltenham School District wanted voice and data connectivity in all its classrooms. The district wanted to make its online grading application more widely available and add an E911 capability that could pinpoint specific classroom numbers in the event of an emergency.

Working with Verizon and Alcatel, the schools are adding those capabilities as they deploy managed Ethernet services across their 20-square-mile district just north of Philadelphia. "We have convergence that results in better information to the classroom, which means better quality of information for students," says Gary Bixby, director of facilities and support services for the district.

Local- and metro-area managed Ethernet services are a great fit for the education sector, given the high density and distributed nature of its end users. Whether it's a university or a K-12 school, educational institutions frequently lack the personnel and budget to manage and administer thousands of Ethernet drops.

"Education is the second largest vertical industry for Ethernet services, accounting for 29% of total U.S. ports," says Erin Dunne, director of research services for consultancy Vertical Systems Group. Ethernet is well suited for campus connectivity, high-bandwidth applications such as video learning or research.

Monthly perport charges range from \$1,000 to \$10,000, depending on the speed of their connection (typically above 1.5 M bit/sec and up to 1G bit or more), the school's distance from a carrier's point of presence, and whether the link is carrier-owned or resold by a third party, Dunne says.

### Procuring pipes

A hunger for high bandwidth led the Information Science Institute (ISI), part of the University of Southern California (USC), to join the Los Nettos Consortium. Los Nettos provides fat pipes and Internet access through Verio, Cogent Communications and other carriers. The Los Nettos Consortium includes USC, CalTech, Jet Propulsion Laboratory and Northrop Grumman Space Technology.

For about \$8,300 a month, ISI gets a 100M bit/sec connection that can burst up to 1G bit if traffic loads permit. Los Nettos provides IP addresses for ISI's demilitarized zone and handles the Border Gateway Protocol peering among the consortium members.

As for management, ISI gets access to Los Nettos' network operations center, and can monitor overall circuit and network performance or track the progress of denial-of-service attacks, according to Richard Nelson, ISI's director of computing in Los Angeles.

In addition, Los Nettos representatives meet monthly with the consortium members to present performance data and address service concerns. "They listen to us and have been

very responsive — they've added IPv6, multicast and Internet2 connectivity for grid computing applications," Nelson says. "So yes, we pay a premium for managed services, but what we get in return is a much better relationship with the provider and extremely reliable service."

Having maxed out on its T-1 backbone, St. Joseph's University turned to Yipes Enterprise Services in 2003. The university wanted the flexibility to add or subtract ports and capacity. It wanted 20M bit/sec connections in the slower summer months and 45M bit/sec the rest of the year, and it also required sufficient redundancy.

Students at the Philadelphia university rely on Web access for e-mail and portal services that let them register for classes, check grades and interact with professors via online course management tools, says Joe Petragnani, St. Joseph's assistant vice president of networking and telecommunications. The network connects 55 buildings and about 7,000 users — students, faculty and staff.

Yipes brought a 100M bit/sec Ethernet circuit into St. Joseph's data center and manages the service from the data center out to its point of presence. It ensures the 99.999% availability contracted in the service-level agreement (SLA) with the university, and contacts Petragnani's department in the event of problems.

"They have a customer care Web site where we can check SLAs and bandwidth utilization, and get daily reports," says Stacey Carlin, assistant director for network services for St. Joseph's. "If we want something more granular, we put in a request and get the report back in 24 hours." She would like to have direct, real-time access to Yipes' network management performance data, similar to what she gets on campus by polling St. Joseph's network nodes, but it's not something Yipes or many other carriers offer yet.

Perhaps best of all, Yipes has proven itself to be price-competitive. St. Joseph's had a three-year contract under which it paid about \$6,000 a month for its Ethernet circuit and management, but a recent renegotiation brought that down to less than \$4,000 a month.

### Ethernet rates with E-Rate

Cheltenham's Bixby says the school district's decision to look at managed Ethernet services from Verizon was hastened by two developments. A Web application where teachers record attendance, assignments and grades, and can be viewed by parents and students, was slowing the network as more viewers logged on. That was costing teach-

### AT A GLANCE: EDUCATION

- Education accounts for 29% percent of more than 23,000 metro and long-haul Ethernet ports in service, second only to healthcare, according to Vertical Systems Group.

- Smaller IT budgets are a fact of life among colleges and universities, according to the latest Campus Computing survey. A little more than 24% report cuts in academic computing in 2004, and another 25% reduced funding for administrative computing last year.

- Student Monitor LLC reports that 53% of full-time college students own a notebook computer, up from 39% in 2004. Desktop systems among collegiate users is down slightly to 69% percent from 76% last year.

ers about 10 minutes of teaching time per day, Bixby says.

Separately, Bixby started tracing through records to find out who owned the fiber that connected the district's eight buildings and 600 faculty and staff. He found it was installed several years ago by Bell Atlantic, now part of Verizon. The outside ownership was good news because it enabled the school district to qualify for an E-Rate discount given to schools and libraries needing Internet access. So while Cheltenham spends \$120,000 annually for managed Ethernet services, the district gets an E-Rate discount of 40%, bringing its actual bill down to about \$72,000. "We don't have a lot of money in our district, so it had to be done in a creative way," he says.

Verizon watches the school district's network, making for better reliability and unexpected levels of responsiveness, Bixby says. "If anything happens, I get a call and they dispatch someone 24/7 within four hours. It's impressive as all get-out," Bixby says. The district has initiated a half dozen calls. The most serious was after a control board went down in one of the data switches. "The other times they've been out before I even knew we had a fault," Bixby says.

The school uses an IP-PEX from Alcatel, and that vendor also steps in if needed, Bixby says. "With all three of us so tightly cooperating, there is never a problem we can't solve."

ISI's Nelson and Petragnani of St. Joseph's also point to the tighter relationships that managed Ethernet create with service providers. Monthly charges may cost more than raw bandwidth, but the better responsiveness means better service reliability. And that figures highly on any user's wish list.

*Sweeney is a freelance writer in Los Angeles. He can be reached at [terry@tsweeney.com](mailto:terry@tsweeney.com).*





# SIX TIME ZONES AWAY. CLICK. DONE.



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# CLEAR CHOICE TEST

## Coradiant provides insight on Web performance

BY THOMAS POWELL, NETWORK WORLD LAB ALLIANCE

Many Web administrators live in a state of blissful ignorance, unaware of the true health and performance of a Web site until users complain. Coradiant's TrueSight 1100 appliance actively monitors actual Web site traffic, giving Web managers a heads-up on problems before their users do.

The TrueSight device needs to be strategically installed in the delivery network to capture the appropriate data. This data capture is accomplished via a network tap, a mirrored port on a switch, or similar feature on a load-balancing device. We were disappointed the device did not contain its own network tap for easy installation.

Initial setup — done with a command line interface via a serial connection — is minimal and requires basic network settings, port information to later administer the box via Web interface, and a master security officer password for the box. In spite of a relatively secure security posture of the appliance in general, you can set a relatively weak password here.

The Web interface lets you enable the device to begin logging traffic. Data collected can be downloaded to a local system for offline analysis or sent via SNMP to any monitoring system. Various session and user detection parameters can be set so captured traffic can be reassembled into a logical view of user activity. To do this you need to make sure your sites have distinguishing items to easily identify users.

However, because you might not always be fully aware

of the range of changes in monitored Web applications, it would be helpful for the device to monitor traffic for new session-oriented cookies and URL patterns, and to alert you to apply them. If you are going to monitor static Web sites, you have to rely on timing and IP addresses to identify user patterns.

The TrueSight box collects potentially sensitive user data, and Coradiant does a reasonable job in securing the appliance. Access to the Web console is forced via SSL, and the box enforces very strong passwords. But we would have liked to see easily accessible usage reports and a richer ability to define access privileges for users.

Configured to monitor SSL traffic, TrueSight can decrypt user sessions when the appropriate keys are loaded. Even for approved users, decrypted traffic might be quite sensitive. To address this concern, TrueSight offers several confidentiality features. For example, captured data cookies, post parameters and Uniform Resource Identifier queries can be sanitized by hashing data into something less sensitive though still uniquely identifying. Values also can be deleted or the entire data item purged.

Once basic traffic capture is enabled, you set up what are called Watchpoints to monitor and filter out important events from the vast amount of data being captured. The box comes with dozens of pre-defined filters, such as those that look for certain types of browsers, error types, speed of users and content types. Setting up custom filters is a breeze through the nicely implemented expression editor. You can specify performance and error rates per filter, a good option if you manage several Web applications with different user expectations.

When we drilled down into the data collected, we developed our love/hate relationship with the TrueSight interface. It's got small polish points that kept us happy, such as a countdown timer that shows when the page is about to reload when actively monitoring; a bypass button that forces content to refresh; and a graphic capture of the LCD on the appliance available from the Web interface. We particularly liked the clean information layout found on session, page and object detail screens that brings clarity to the massive amount of request data found in a typical user session.

But we occasionally became frustrated when moving back through the system as it lost our place in the list of

### WEB MANAGEMENT

#### TRUESIGHT 1100

Coradiant *coradiant.com*

### NetResults 4.03

Starting at \$84,950

**Pros:** Detailed reporting of availability and performance data; strong ad hoc querying support; easy-to-use interface.

**Cons:** Lacks full response monitoring of packet payload; built-in network taps would be helpful.

#### The Breakdown

Monitoring	40%	3.5	<b>Scoring Key:</b> 5: Exceptional 4: Very good. 3: Average. 2: Below average. 1: Subpar or not available.
Administration	20%	4.5	
Security	15%	4.5	
Interface and reporting	15%	4	
Installation	10%	4.5	
<b>Total score</b>		<b>4.03</b>	

sessions. We also found it frustrating that we couldn't directly launch a browser to access various Web objects monitored to verify observed errors ourselves. Also, while reporting looked very nice, very often, we found the labeling in the system extremely hard to read when there was a lot of data in a graph.

The key benefit of TrueSight lies in its ability to isolate and help solve problems. We very clearly spotted intermittent performance problems, some occasional server hangs and the ever-common HTTP errors. However, the device does not yet offer deep insight into the application level or content issues that might occur in a Web site, so we were sometimes stymied by investigating problems. For example, we could not see full headers of transactions, which, in a few cases of dealing with ISAPI filters, would have resolved problems quickly. Furthermore, because we could not observe the actual HTML and other content returned, the box could clearly miss application logic where a page returns a 200 level HTTP status but is ruined datawise.

In capable hands, Coradiant's TrueSight acts as a smart microscope for Web administrators who want an in-depth look at their site's network traffic for incident resolution. While it does not yet offer everything that a Web administrator might eventually want, notably full insight into headers and response payload, what the appliance does, it does very well.

*Powell is the founder of PINT, a San Diego Web development and consulting firm. He also is the author of numerous books on Web development practices. He can be reached at [tpowell@pint.com](mailto:tpowell@pint.com).*

### How We Did It

**W**e installed the Coradiant TrueSight 1100 in a Web farm collocated at the Inflow national collocation facility in San Diego. Data was collected passively via a generic network tap. The farm served approximately 200 different Web sites, including e-commerce sites; a few Web applications; and a variety of static, semi-dynamic and fully dynamic Web sites built with a multitude of technologies, including Active Server Pages, ColdFusion, PHP and Java Server Pages. We monitored live Web traffic off and on for approximately three months; and the device was used to diagnosis basic server problems, performance issues, broken links and a number of other errors. We ran both manual and synthetic tests to make sure the device captured sessions accurately.

### Global Test Alliance

■ Powell also is a member of the Network World Lab Alliance, a cooperative of the premier testers in the network industry, each bringing to bear years of practical experience on every test. For more Lab Alliance information, including what it takes to become a partner, go to [www.networkworld.com/alliance](http://www.networkworld.com/alliance).





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## Companies check up on IT vendors

United Parcel Service and General Motors delegate formal responsibility for vendor relationship management to ensure successful outcomes.

BY JOHN COX

**U**nited Parcel Service's top IT operations guy, Jim Medeiros, recently sat down with a key UPS hardware supplier to talk about deploying new application servers.

"I was listing out for him a bunch of things we want to make sure we do together, so this new technology will work properly," says Medeiros, vice president of shared services for UPS in Atlanta. Among his queries:

- What are all the things that can go wrong?
- What skill levels are needed, from the vendor and from UPS?
- What items should be covered on a common status report?
- Should we have one person from each company who is not directly involved in the project to objectively review whether the project is successfully meeting its goals?
- What resources need to be assigned by both companies to ensure success?
- What other customers of the vendor have deployed this technology and are willing to provide feedback to UPS?

"I'd never get any of that information if all I did was sign a contract and install the product," Medeiros says.

These are the kinds of questions that more network and IT professionals now are asking their vendors, and themselves. This awareness is being embodied either in new, more formal responsibilities for senior IT managers, or in new jobs with titles such as vendor relationship manager.

"Historically, the vendor-management role was shaped by software and hardware features and functions. Negotiations were around things like quantity, product features and so on," says Diane Morello, vice president of business management of IT for Gartner. "Today, the conversation [with IT vendors] is more about intangibles, about such things as service levels that are being measured. It's less about items and more about outcomes."

### Rationalize relationships

A viable vendor-management function can rationalize a web of relationships between a large company and a group of vendors, save money and time, and give the enterprise more control over meeting its project and business objectives.

Gary Wolfram of North Bend, Ind., is a former programmer and IT manager who's been involved in vendor management since 1996. At that time, he was hired as an outside consultant to direct IS recruiting for a large company with a division that was starting to build out its IT group.

Wolfram set up a centralized system for managing the various recruiting companies that were supplying his client with contract programmers and IT staff. "We were able to save 25% of the hiring managers' time, simply by the fact they no longer had to repeat themselves over and over to every one of these vendors," Wolfram recalls.

At the same time, Wolfram worked with the IT and project managers who hire the contract programmers, to help them understand that a lower rate was not the sole criteria in making a decision. A less-experienced programmer would have a lower hourly rate, but might require more supervision or support, which could increase the project's overall cost.

### Communicate clearly

Managing these kinds of outcomes with IT vendors requires lines of communications beyond those of the traditional procurement process. IT groups are responding to this by setting up formal and informal communications between different levels of a company and their IT vendors.

Over the past six years, General Motors has created the role of mentor for each of its strategic IT vendors, about 20 companies in all. The mentor is a senior IT manager who acts as an adviser and sounding board for the vendor. "We keep this separate from the contractual and bidding activities," says Dan

McNicholl, chief strategy officer for IS and services at GM in Detroit. "The mentor doesn't get in the middle of contract negotiations, for example."

GM also demands of each of these vendors a corresponding contact who is separate from the vendor's day-to-day account manager.

Once a year, GM's top IT leaders, about 15 people, take off in a corporate jet to visit the top management of these strategic IT vendors. In nearly daylong meetings, the two groups review the business outlook, challenges and directions, and relate these to IT priorities and goals.

Finally, GM is the annual host of a supplier forum for its top IT vendors. One of the key events is the scorecard of

each vendor's performance. GM has about 18 categories that the mentors, consulting with other GM managers, use to evaluate how well each vendor is doing. The categories cover how responsive the vendor is to GM's needs, cost-effectiveness and pricing. GM also collects industrywide scorecard data from outside sources and compares this data with its own performance ranking.

The vendors take the results very seriously, McNicholl says. "They've immediately changed their account-team leadership in response to low scores," he says.

### Share responsibilities

UPS now has two main levels to its vendor-management process. It designates relationship managers, which are duties assigned to midlevel IT managers who work daily with a given vendor's products or services. Then there are executive sponsors, who are senior managers, typically vice presidents, as Medeiros is.

The relationship managers oversee issues around a new version of the vendor's software or a glitch in deploying a product. The sponsors meet monthly with the vendor to review higher-level issues, such as long-range product plans and the status of pending technology decisions. The executive sponsor gives the vendors a voice in where UPS is going with technology, counsels them on internal UPS processes, and accurately and consistently explains what Medeiros calls "the rules of the game."

The emphasis on a relationship as opposed to contract terms puts a premium on understanding each other, and understanding requires listening, GM's McNicholl says. "They have to be listening, and so do we," he says. "And listening is not a skill with which many IT executives are

especially comfortable."

In a recent incident, users on GM's VPN were getting repeated logon errors. The VPN has components from four vendors. The GM relationship manager coordinated with the lead vendor, who brought in the other suppliers via an audioconference to sort out how to approach the problem. This team worked out a plan and assignments, and created an interim workaround, while they figured out the root cause, which turned out to be a software problem.

It was a two-way process. "A couple of things came home to me about how we [at GM] could do a better job on our side to prevent these problems," McNicholl says. ■



**"I'd never get any of that information if all I did was sign a contract and install the product."**

*Jim Medeiros, vice president of shared services, UPS*





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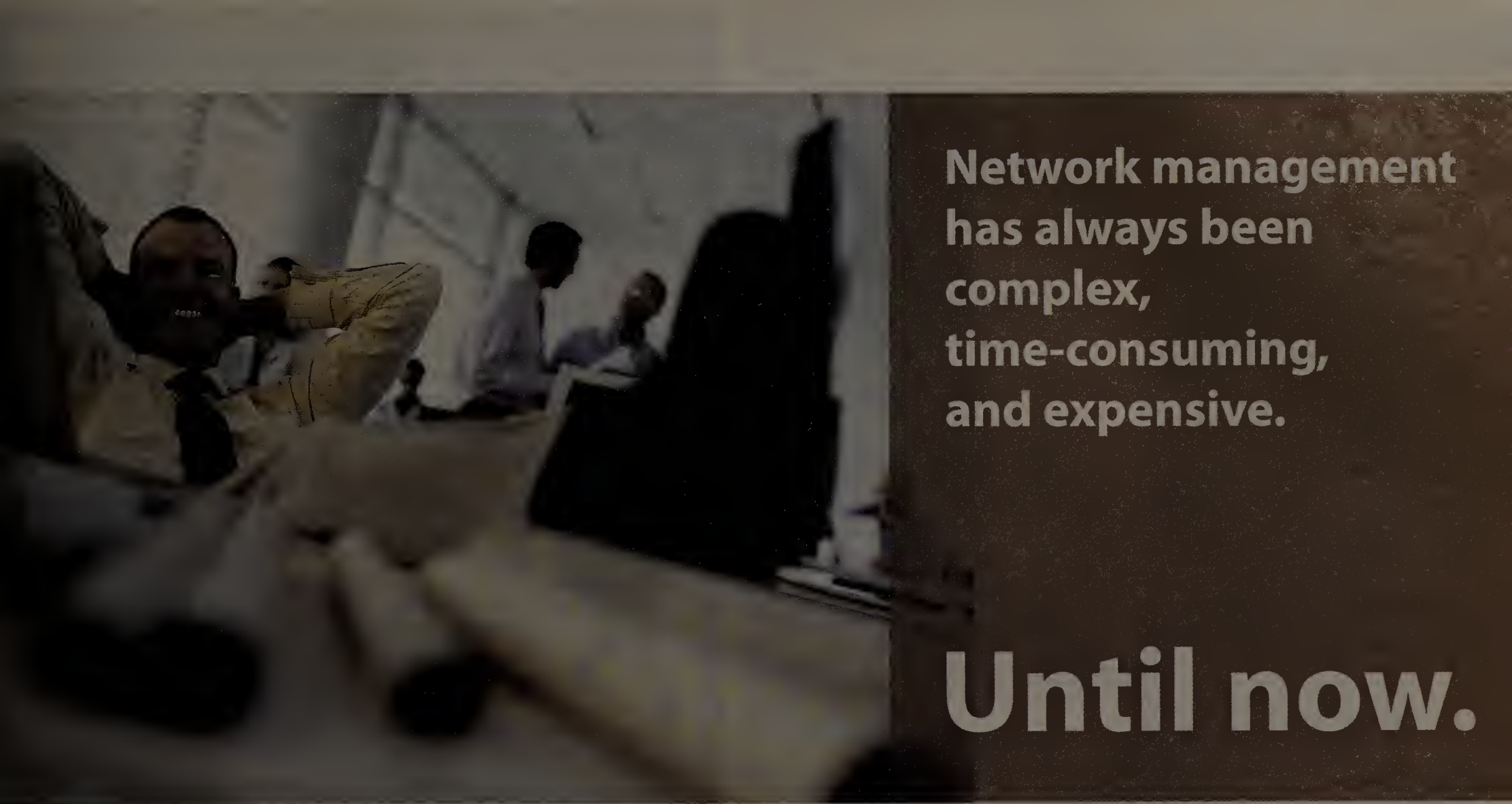


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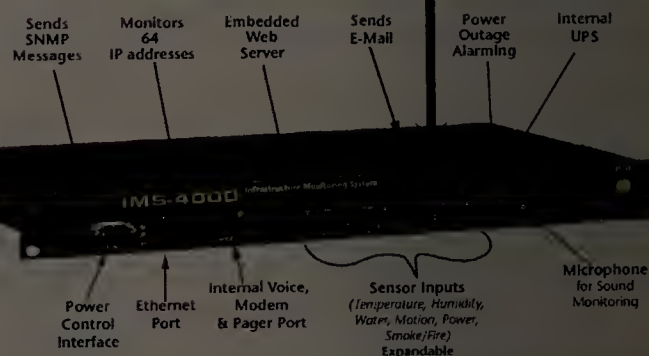
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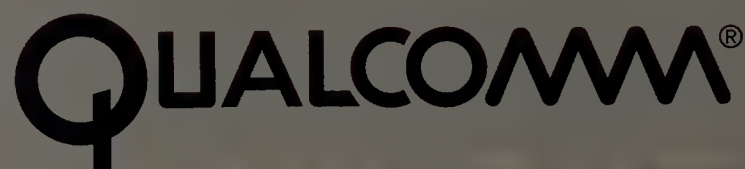
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## VoIP

continued from page 1

more quickly and efficiently using Skype's VoIP capabilities, not to tack on VoIP as a separate unrelated line of business.

Because Skype is a peer-to-peer technology that also supports video, it would be possible to link buyers and sellers directly, for example. "Voice is the dominant requirement for a communications session, but voice is just one thing you can do with Skype," says Bob Rosenberg, president of Insight Research. "With it you can create your own application environment and support video."

While Skype may allow eBay to do business in new ways, it does not transform eBay into a phone company, says Jeff Kagan, an independent telecommunications consultant. "It will help eBay expand into new lines of business where buyers feel more comfortable buying and selling big-ticket items like cars and houses. It will be an add-on service helping to expand their traditional online service," Kagan says.

So rather than relying on eBay as an arbiter of trade that is carried out online and via e-mail, eBay customers will use Skype to create a more immediate environment in which to do business, says David Willis, vice president of enterprise communications for Gartner. "People in the Middle

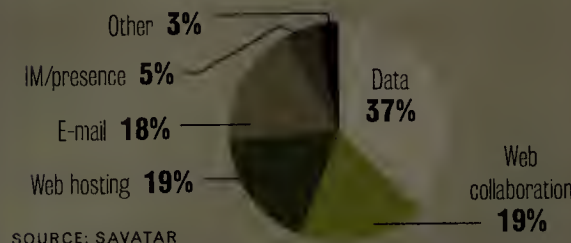
East typically haggle to get the price they want," he says. "Skype will allow eBay customers to do that."

For now, the bulk of business customers and providers are light-years behind eBay on the VoIP innovation scale, according to research that will be presented at VON. Businesses want bundles of IP services that are less expensive and take up less administrative time than their traditional services, according to the survey by Savatar of 300 telecom decision makers at small and midsize businesses. They are not seeking to push the limits of the technology to create new ways of doing business a la eBay, says John Macario, president of Savatar. "They say, 'I'm looking for a vendor to establish that they can do voice really well before I'd consider buying other services from them,'" he says.

Another problem is that businesses are generally unfamiliar with the broader possibilities of VoIP, says Suke Jawanda, Savatar's vice president of marketing. Providers don't make it easy for customers to find out what IP services they offer and what their benefits are, he says. When asked where they would go to find out about VoIP services, "A lot said, 'I

## Not just VoIP

Businesses want bundles of services that augment VoIP, according to a survey of 300 corporate telecom decision makers. The executives were asked what other services they would buy from their VoIP provider.



would do a Google and see what came up," Jawanda says.

Larger businesses have similar reservations. For instance, 3M has looked at VoIP and failed to come up with a compelling reason to convert, says Rick Eaton, telecom specialist for 3M in Minneapolis, who is speaking at VON about verifying service-level agreements.

"We recognize there is value in integrating voice, data and video onto one network in terms of management or maybe carrier services, maybe for managing those as well. But the path is not entirely clear," Eaton says. "We're looking for that application that might change the way we do business and really add some value."

Eaton also is concerned about threats to VoIP availability be-

cause of attacks on the shared networks that business VoIP runs over. "We had a situation two weeks ago where we were infected by a virus at 3M," Eaton says. The problem caused some data services to be inaccessible for several hours. "Had we not been able to make phone calls at the same time, our business would have come to an absolute halt."

In addition, there are potential vulnerabilities unique to VoIP that can threaten reliability. For instance, some open source code for Session Initiation Protocol (SIP) — the signaling, call control and presence software for many VoIP networks — may contain vulnerabilities, according to a study to be presented at VON by SecurityLab Technologies.

Specifically, the SIP-X Phone stack, the GNU SIS-O stack and the Vocal/Voida SIP stack could leave any device based on these software loads vulnerable to a denial-of-service attack, or a takeover of the device, allowing an attacker to run outside code on the device, says Ejovi Nuwere, CTO for SecurityLab. Nuwere says that these vulnerabilities could leave such devices as IP PBXs and IP phones, VoIP gateways, softswitches or PCs running soft-phone clients exposed. "When it comes to security, VoIP is basically in 1997," he says.

"The vast majority of VoIP

devices currently being sold and used are based on the same foundations and the same stacks," Nuwere says. Because much VoIP software was written by programmers several years ago, mainly by coders with backgrounds in the carrier and telecom industries, the newer attack methods for hacking IP software was not as much a concern, he says.

Security worries are shared by businesses considering VoIP, according to a recent study by InStat. The task of securing VoIP networks is among the most immediate concerns of IT executives deploying converged networks, recent research shows. According to a 2005 survey by InStat, 75% of companies that have VoIP deployed plan to replace their firewalls, VPN gateways and intrusion-detection systems to better support converged traffic. The research firm says most VoIP-focused companies plan to implement these changes over the next year.

Service providers at the show as well as equipment vendors are expected to tout their adoption of a network standard called IP Multimedia Subsystems (IMS) that is meant to create a common IP network architecture that will enable flexible, quickly created IP services based on products made by many vendors.

Convedia and Covergence say they will announce that their gear is being installed in specific carrier networks, but would not say which ones. Other vendors plan to announce that their products either comply with IMS or will do so soon. ■

# Shavlik adds anti-spyware

BY JOHN FONTANA

Shavlik Technologies, long known for patch management software, is adding anti-spyware capabilities to its platform.

The company recently released Shavlik NetChk Spyware, a stand-alone application that lets customers detect and remove spyware from any server or workstation on a network running Windows NT or higher. The spyware software also can be integrated with Shavlik's HFNetChkPro, a patch management platform. The integration will provide users with one interface for managing both products. Shavlik is calling the integrated product Shavlik NetChk Protect, which will become the foundation of a security management line of products. Shavlik intends to add Compliance Manager to the lineup later this year.

"It's all about single point of management, and one of the benefits of Shavlik is that there is no client software," says Jeff Martin, computer resource specialist at the University of California, Riverside. Shavlik has built its Protect suite so that its agent-less and agent technology is common to all its security products. "If I can check all of my domain controllers, my SQL

server, both my Exchange servers and all 300 of my clients in half an hour, that gives me more time to do important stuff."

Spyware is known for its appetite for desktop resources and the security risks it can open on a desktop. According to the National Cyber Security Alliance, spyware affects 80% to 90% of desktops.

With the Protect suite, users get an all-in-one console that provides vulnerability discovery and reporting services. From the console users can run multiple scans for both patches and spyware.

The spyware software features full spyware removal, which eliminates every registry key and file associated with the spyware. Users can schedule scans at specific times or initiate scans on demand.

While Microsoft offers an anti-spyware tool for the desktop, it has yet to develop a corporate version of the software. Shavlik is aiming to plug that gap. It competes with BigFix, PatchLink and others.

NetChk Spyware runs on Windows 2000 and above and costs \$16 per user per year for 100 to 249 users. NetChk Protect is priced at \$31 per user for the same number of users. ■

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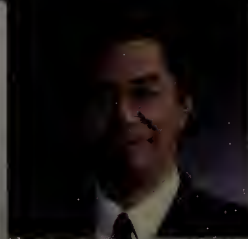
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## BACKSPIN Mark Gibbs

# Internet Explorer required: Your comments

Last week's column discussing how the Federal Emergency Management Agency's Individual Assistance

Center Web site required people filing claims to use Microsoft's Internet Explorer 6.0 generated a lot of feedback.

Reader Gary McMillian wrote that this obsession with Internet Explorer isn't restricted to FEMA: "The [Department of Defense] insists on [Internet Explorer] to submit invoices through their new Wide Area Work Flow [WAWF] system. At some point in the future [the original deadline has passed], if you don't use WAWF [and Internet Explorer] then you won't be able to invoice the [Defense Department] and receive payment for work done."

But that's not all. McMillian continued: "To add to the insult, the group responsible for payments, the Defense Finance and Accounting Service, requires [Internet Explorer] to access their invoice inquiry system."

He agrees that legislation is required to keep the federal government from mandating use of a particular vendor's browser. Me, I think this requirement should extend to all federal and state government departments as part of a larger strategy that makes government information and services as widely accessible as possible to Internet users.

But not all readers agreed. David Gray wrote, "I'm not a

big fan of government, but as a Webmaster and developer, I have to disagree with your comments regarding government requiring [Internet Explorer]. What would you say if they postponed having a Web site to make sure it was compatible with the 10% to 15% of the other users? I'm sure you'd complain that they don't have a Web site!"

Having a Web site is a big step forward and, disregarding the question of whether the content is really useful on these sites, the elephant-in-the-room-sized issue is why is the FEMA site browsers-specific? We're talking about filling out forms, not presenting exotic multimedia content.

A possible answer is that FEMA, like the Copyright Office, uses a back-end system (the Copyright Office uses Siebel) that doesn't integrate with anything but Internet Explorer. I can't imagine how or why this limitation exists, but it shows a remarkable lack of foresight on the part of any department that uses such restrictive infrastructure this late in the game.

Even so, Gray saw this glass as half full: "This is government. Be happy that they even have a site available!"

I also got a note from reader Wonko the Sane (so he claims) that pointed out: "You don't have to go back far in Internet history to know that all the Requests For Comment, which are in truth the de facto standards of the Internet, must be submitted in plain text — the lowest common denominator — so that any word or text processor can read them."

He continued, "the fact remains that plain text is the rule. If the basics are good enough for the Internet itself,

they should be good enough for everybody else."

Wonko pointed out that "increasing numbers of computer users are moving to open standards such as Linux, and those institutions who insist on going with the proprietary flow will alienate a growing number of customers."

Going back to Gray, he also raised the issue that we live in a democracy "in which the majority rules. And since 85% to 90% of users use [Internet Explorer], I'd say [the government is] catering to the majority for a change."

I must again disagree. A crucial goal of government should be to provide service to the greater good, which is, in fact, an objective that it embraced a long time ago.

In pursuit of this goal the government mandated Universal Service for telephones and provides services in more than just English, despite English being the majority language. It also mandated provision for handicapped access despite the majority being able-bodied.

So when it comes to Web browsers, the majority are not defined by having IE6+ but through being HTML 4-compatible. Moreover, don't you think in the litany of world-class screw-ups that characterized the government's response to the New Orleans disaster, the fact that this Web service didn't exist before the flood shows just how disconnected FEMA has become from the job it was supposed to be capable of doing?

Your answers to [backspin@gibbs.com](mailto:backspin@gibbs.com). PS. Check out Gearblog ([www.networkworld.com/weblogs/gearblog/](http://www.networkworld.com/weblogs/gearblog/)).



Paul McNamara

## NETBUZZ News, insights, opinions and oddities

### An ugly look inside

True story (or so I'm told): With Web mail accounts strictly prohibited by corporate policy and the ban enforced by filtering software, the potential customer assured technicians from Reconnex there would be no need to check for this particular security threat as part

of the vendor's free 48-hour e-Risk Rapid Assessment.

No harm in checking anyway, the techs assured their prospect.

And, of course, they did find Web mail, the first of which bragged: "Hey, I finally figured out a way to get around this ban on Web mail."

Author Dan Verton, a former *Computerworld* reporter, has collected buckets full of such tales — many of them far more serious, some downright criminal — in his new book entitled *The Insider: A True Story*. While every IT professional already knows that security threats from within are often more dangerous than those kept at bay by firewalls, the book shines a spotlight directly on the depth and breadth of the problem.

There are examples and anecdotes aplenty plucked from today's headlines and recent history — who knew that the cosmetics industry was so cutthroat? But the book's most telling tales are gleaned from the first 50 of those risk assessments conducted by Reconnex, a start-up headed by veteran entrepreneur Don Massaro.

"This is real live information taken from large companies and agencies, and in some cases where the person who's doing the criminal activity has not been caught," says Verton, whose previous books include *Black Ice: The Invisible Threat of Cyber-Terrorism*. "This is what's really happening behind the firewalls."

A pretty picture it isn't, either for the IT executives learning the unvarnished truth or the wayward employees caught red-handed abusing company networks and ignoring policies.

"On many of these occasions somebody — or multiple people — ended up getting fired as a result of the data that was found," Verton says.

"One of the cases really stands out in my mind. It was a major government agency

that was just completely drowning in pornography and gambling sites and all kinds of inappropriate content. They thought they had tools that were blocking access to this stuff. They found so much hate and racist content and pornographic content that the people who were in the room from the agency when they got their briefing basically had to get up and leave — it was that bad."

One major advantage of the Reconnex reports is that the information is provided in a format that's easily digestible by not only IT executives but also business managers, according to Verton.

"You don't have to be an IT security expert; it's not bits and bytes," he says.

"Managers can do the live forensics on this data and you can see the e-mails, you can see the content of Web postings, you can see the content of FTP traffic, of instant messages, of attachments of all kinds, including encrypted attachments. You get this report after two days, and whether you buy [the Reconnex risk management products] or not, you now know instantly the scale of the problem inside your organization."

One company that felt fairly confident in its policy that everything be encrypted — 100% — was startled to learn that less than 20% was actually under lock and key.

Banks were learning that their employees were virtually opening the vaults to identity thieves by ignoring policies governing e-mail correspondence with customers.

"They had no idea that the extent of the problem was such that the employees were telling customers, 'Yes, we'd love to help you open that account; send me your name, address, Social Security number, current bank account number, routing number — all this stuff via unencrypted e-mail. These are at major companies with tens of billions of dollars of assets under their control,'" Verton says.

Near the end of our chat, I asked Verton whether any of the 50 risk assessment reports he read painted a picture of an organization fully in control of its insider threat vulnerabilities.

Answer: "No."

There's no risk in letting me know what you think. The address is [buzz@nww.com](mailto:buzz@nww.com).



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